EXECUTIVE SUMMARY

Rapid growth around East Broad Street, west of the I-270 Interstate, has attracted attention to the capacity of the roadway and the development that surrounds this important corridor. Items of particular concern are traffic congestion, poor development patterns, and inadequate parkland. The three primary questions investigated in this study were: 1) What are the current and future impacts on East Broad Street (and the area) if the current trends continue?; 2) What steps are necessary to ensure the community's long-term viability?; and 3) Can the type of development occurring within the study area be improved, possibly through the use of traditional neighborhood development standards? This study addresses these important questions and recommends solutions for the present and the future of the community.

The East Broad Street Corridor Study confirms that staggering growth and development has occurred along the East Broad Street corridor. What was once a basic transportation connection between Columbus and western Franklin/eastern Licking Counties has been converted from a few industrial parks among rural residential and agricultural uses to a busy retail corridor surrounded by housing developments. The residential population has increased by more than 200% since 1970 with over 11,000 people now residing in the area. This figure will continue to rise in the next couple years as previously approved development is built. This will include more than 250 additional single-family and 1,600 additional multi-family residential units. The commercial portion of the area developed rapidly in the past decade as well, with over 300,000 square feet of retail space constructed along East Broad Street. This pace has continued as a minimum of another 250,000 square feet has been approved and will be built in the next few years.

The vast amount of residential and commercial development has combined to generate huge traffic volumes on East Broad Street. When considering the trip generation of just residential units, the area at build-out will contribute approximately 54,000 vehicle trips per day in this study area alone – primarily involving travel on Broad Street. Virtually all these developments rely on East Broad Street as the primary ingress and egress commuter route of the area, and the retail fronting on Broad Street provides much of their retail service needs. In addition to the local impact, an increasingly significant traffic generator on East Broad Street is the tremendous growth occurring farther to the east in Licking County. The current average number of vehicles on East Broad Street is 40,000 per day. Under conservative growth estimates, this number will exceed 65,000 vehicles per day by 2020. This is equivalent to half of the traffic volume currently on I-270 – a limited access highway.

A number of findings were significant, in addition to the staggering traffic impacts. These included the subtle ways the development patterns have been affecting traffic volume on East Broad as well as alternate ways to design sites to make them more livable for the community. Opportunities were identified to interconnect parkland and attract future mass transit services.

Based on these results, the East Broad Street Study finds that the corridor has several challenges, but options to improve the area are available. One half of the objective is mitigating the traffic impact on Broad Street itself, while the other is to effect an improvement in the overall design philosophy of development in the area. These are difficult and predominantly long-term tasks, that should be undertaken now. Important measures must occur in order to reverse the path of sprawl and create "livable communities" that are pedestrian friendly, less automobile dependent and have a sense of place.

Executive Summary

As a result, the following recommendations have been developed for this study area:

1. Revise the thoroughfare plans for this area;
2. Widen East Broad Street to six lanes – with a landscaped median;
3. Require the creation of additional east-west roadway connections as parcels develop and redevelop;
4. Encourage development along East Broad Street that are low trip or off-peak generation uses – limit additional retail development on Broad Street;
5. Implement principles of the Traditional Neighborhood Development code standards for future development in the study area, particularly with regard to road interconnection, building siting, parking location, and pedestrian access;
6. Create design standards for East Broad Street;
7. Adopt policy and code requirements for redevelopment of East Broad Street rural lots;
8. Develop an interconnected bike/walking trail network in the East Broad Street area;
9. Encourage siting and developing transit stations and bus stop/shelters in the East Broad Street study area; and;
10. Organize an advocacy group for mass transit.

The opportunity lies herein to take the necessary steps to alter the pattern of development along the East Broad Street corridor, thus improving the face and function of the community. Positive change is still possible, but difficult policy decisions must be made to ensure success. Now is the time to advocate change before the opportunity again passes and we find ourselves waiting for the next generation of development to implement these recommendations.

EAST BROAD STREET STUDY

I. Introduction

BACKGROUND

Broad Street is one of two original major arteries that played a fundamental role in the development pattern of Columbus, Ohio. Historically, Columbus developed around a major north-south spine, High Street, and an equally important east-west lateral, Broad Street. The intersection of these two roads downtown still serves as both the technical and figurative center of the entire city. As Columbus expanded over the years, new development followed these two thoroughfares and growth gradually stretched away from the central city. When the interstate system was constructed through downtown, the expansion of Columbus accelerated. By the early 1970's, the outerbelt (I-270) was completed to serve commuters traveling from and within the farther reaches of the city and suburbs. This spurred growth east of the new outerbelt along East Broad Street, where a few large companies located because of available land and good roadway and rail access. Suburban residential and retail developments gradually followed.

In the past decade, development pressure throughout Central Ohio has intensified dramatically with the booming economy and increasing population. Significant new housing and commercial construction projects continue to occur in both Franklin County and the surrounding areas. One particular region of concentrated development has been the far eastern portion of Franklin County and the southwestern part of neighboring Licking County. This growth has only added to the status of East Broad Street as both an overburdened commuter route and a lengthy commercial strip. Today, as development presses farther beyond the outerbelt, farmland is rapidly being converted to housing and, in this area, the supporting retail services are locating almost exclusively along Broad Street.

The impact on East Broad Street is evident. The roadway is quickly becoming overwhelmed as vehicle trips are generated by new uses along the corridor. Due to the limitations of the existing roadway network in this portion of the county, the traffic created by new development is funneled onto East Broad Street for any commute or errand. Thousands of motorists use East Broad Street for access to I-270 everyday. A crisis is looming because the maximum capacity of the I-270/East Broad Street interchange is being reached, as well as the capacity of each major intersection along East Broad Street. These areas now serve as constriction points that threaten the function and safety of the roadway, and thus the area's transportation system. Similar dilemmas exist in other areas of the city, but it will be difficult and expensive to correct this corridor due to the existing development patterns and lack of undeveloped ground for alternate routes. More importantly, the development patterns that are occurring along East Broad Street completely fail to provide the level of vehicular interconnectivity that is needed to mitigate this increasingly difficult situation.

CURRENT STATUS

The rapid rate of development in the East Broad Street area raised interest within the city of Columbus for the creation of an overall plan for the area. In addition to apprehension regarding traffic congestion, the issues of provision of ample city services, sufficient parks and recreational trails, adequate amenities, enhanced aesthetics, and better development patterns have been discussed. These elements directly affect the quality of life for existing and future residents in the East Broad Street corridor. As the pace of development has quickened, support for a planning examination of this area has grown.

Due to these factors, Myers Schmalenberger Inc., along with Parsons Transportation, was hired to study the East Broad Street corridor from I-270 to the Licking County line. In addition, a study area was identified that included all of the city of Columbus in the immediate vicinity of the corridor as well as adjacent portions of the city of Reynoldsburg and unincorporated Jefferson Township. A Steering Committee of community and business leaders was selected to guide the planning process for the area. Members represented the various government jurisdictions in the area as well as significant businesses along East Broad Street *(see Appendix A, Steering Committee Members)*.

PLAN TASKS

The charge for the planning team was twofold. The first task was to identify the existing conditions on East Broad Street and develop recommendations the *improve the corridor from a functional and aesthetic standpoint*. The primary focus of this task was the investigation of methods to improve the roadway network and ease the impending capacity crisis on East Broad Street. Due to the City's increased concern toward enhancing the appearance of Columbus' major road corridors, additional concentration was placed on ways to improve the curb appeal and aesthetic character of parcels along this corridor, particularly as they redevelop. The second task was to *investigate alternative site development opportunities for undeveloped land* within the study area and determine whether new development standards being drafted by the city could be implemented there. These two new standards are the Traditional Neighborhood Development (TND) code and the Transit-Oriented Development (TOD) code.

Traditional Neighborhood Development (TND)

The Traditional Neighborhood Development (TND) code is a comprehensive planning and community design tool being crafted by the Planning Office of the city of Columbus. It is the result of a collaborative planning process between the City, concerned citizens, members of the development community, and the consulting firm of Duany Plater-Zyberk, who was retained by Columbus to complete the draft of the code. The goal of the Traditional Neighborhood Development code is to encourage new development to replicate the best aspects of successful urban neighborhoods ("traditional neighborhoods"), resulting in a marriage of function, form, efficiency, diversity, and livability. Successfully codifying these concepts is very difficult to achieve and the process is still underway. The intent of these standards is already clear, however, and some principles have been incorporated into the design concepts proposed herein for the East Broad Street study area. Some of the major tenets of the TND code include an interconnected road system and walkable block pattern developed with multistory structures in a mix of uses and focused around higher-density nodes. Development true to this code includes a variety of commercial and housing types within the same neighborhood and often sharing the same structures. This includes buildings with retail operations on the first floor and residential and/or office uses above. Large setbacks are not desirable and buildings are pulled close to the sidewalk with parks and civic structures located within easy strolling distance. Open space is used as an organizational element and the pedestrian scale of the neighborhood is stressed. Interconnectivity of the roadway system within the development and between adjacent areas is paramount with a strategy focusing on developing a hierarchy of streets. The use of narrowed roadway pavement, on-street parking, and alley systems is also encouraged to make the streets and community more "livable." One of the many advantages of a successful traditional neighborhood is that people can live, work, shop, and recreate in the same community without heavy reliance upon an automobile.

Transit Oriented Development (TOD)

The Transit Oriented Development (TOD) code takes the traditional neighborhood development one step further by orienting the urban design around a transit component. Like the TND code, the TOD encourages a mix of uses and densities but it focuses the intensity of development around a central core with a transit station. A transit station is an ideal center of activity capable of supporting some degree of commercial and neighborhood retail development and also often serving as a public gathering space. The transit center creates a logical focus for increased residential density while providing the possibility of shared parking areas with other commercial uses. The importance of increased densities around transit centers is that many commuter trips that would normally occur on the road network are transferred to the mass transit line. In addition, basic errands can be accomplished within the center and without the use of an automobile.

Introduction

The investigation of potential future development within the study area has been restricted to a few sites due to the extensive degree of recent development in the study area. Four (4) focus areas were identified and then examined with illustrative development design concepts. A twofold approach was implemented. First, the TND and TOD standards were applied to each site, including the creation of conceptual land use diagrams. Second, the basic principles of the TND standard were applied to currently pending development applications in the study areas in an attempt to improve the plans.

This report describes the results of the two study tasks. Recommendations are made on how to 1) Improve the East Broad Street corridor from a functional and aesthetic standpoint, and 2) Guide development in the few remaining large vacant sites within the study area using the principals of the TND and TOD standards. Overall the project proved to be a significant challenge due to the level of development that has occurred in the area and which established a context for the remaining sites. In fact, the consultant and the steering committee were concerned regarding both the amount of development that was already approved and that which was zoned but not yet built. Unfortunately, improving the character of development in the area will be difficult. The existing uses are largely devoid of the basic principles of traditional neighborhood planning, making the inclusion of these concepts challenging. The intent of the TND standard is not to create an oasis among suburban sprawl, but to create interconnected neighborhoods. The pattern of development established in the area directly contributes to the traffic issues on East Broad Street and has not adequately addressed improving the appearance of the corridor. With traffic-intensive, segmented development still underway due to currently approved zoning applications, short-term changes to the area will be incremental rather than broad, sweeping ones. This study outlines steps toward mitigating the current situation, and provides long-term goals for improving the overall design philosophy of development throughout the East Broad Street area.

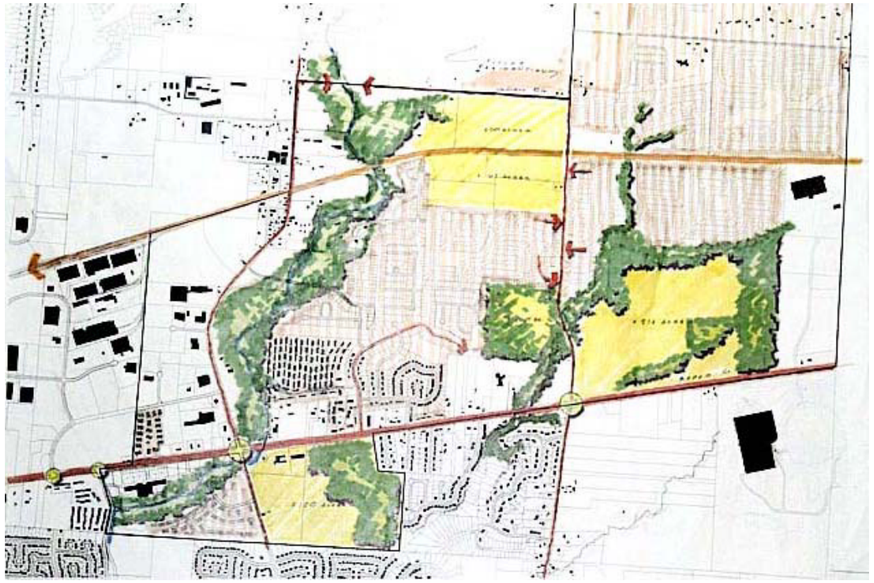


Figure 1, East Broad Street Area Planning Diagram

II. Existing Conditions

This section details the transportation and land use study performed for the designated East Broad Street Corridor and Study Area *(see Figure 2, Context Map and Figure 3, East Broad Street Corridor and Study Area).* The study area is located in the far eastern portion of Franklin County, Ohio, approximately 7.5 miles east of downtown Columbus. Its eastern boundary is the Licking/Franklin county line. The study area consists of approximately 3,048 acres and the length of the East Broad Street Corridor investigated here is approximately 4.5 miles.

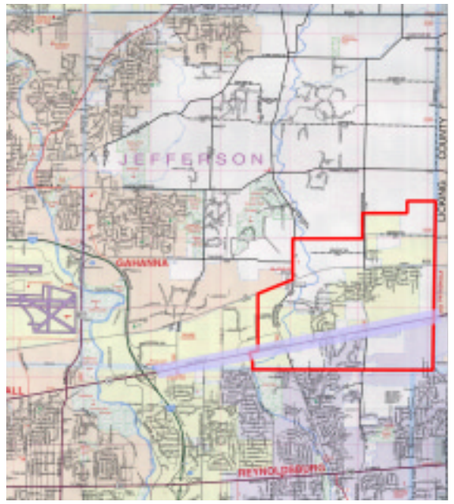


Figure 2, Context Map

In addition to the East Broad Street corridor, significant features of the study area include heavily wooded ravines, the Blacklick and Dysart Creeks, and a main line CSX rail corridor. The study area is within close proximity to the outerbelt (I-270) and the Columbus Metropolitan Airport *(see Figure 4, Aerial Photo)*.

Land contained within the study area is in the city of Columbus, the southern portion of unincorporated Jefferson Township, or the city of Reynoldsburg, and . In addition, the city of Pataskala is directly to the east, across the county line, and the city of Gahanna is closeby to the northwest of the study area. This section of the report addresses the existing site features and characteristics as they affect and shape the study area. The following section highlights the current study area conditions and, in some cases, investigates the potential impacts of projected build-out in the area.

A. Population

The population of the study area has a direct relationship with the number of vehicle trips generated on East Broad Street. Eastern Columbus and the Columbus metro area have seen rapid growth of population in recent years. With the additional growth in Reynoldsburg, the merger of Pataskala and Lima Township, and steady development in this region of Columbus and Jefferson Township, Broad Street has experienced an influx of traffic from this population increase coupled with ongoing business development. For this plan, the U.S. Census Tract corresponding to the study area was used to examine the area's demographic information. It should be noted that the census tract boundaries (Tract 0073.90) are larger than the study area and thus the data should be thought of as establishing a general baseline for the study area.

Table I: Census Information (below) represents selected demographic information between 1970 and 2000. While the population explosion occurred predominantly in the late 1970's, with steady increases since,

Table I: Census Information	1970	1980	1990	2000	% Change 1970-2000
Population	3,471	8,696	10,160	11,359	227%
School age Children	1,099	2,844	2,574	3,647	232%
People per household	3.5	3.3	3.2	3.0	-14%
Vehicles per household	0.9	0.9	2.3	3.0	233%
Residents working in Columbus	811	2,467	2,719	3,907	382%

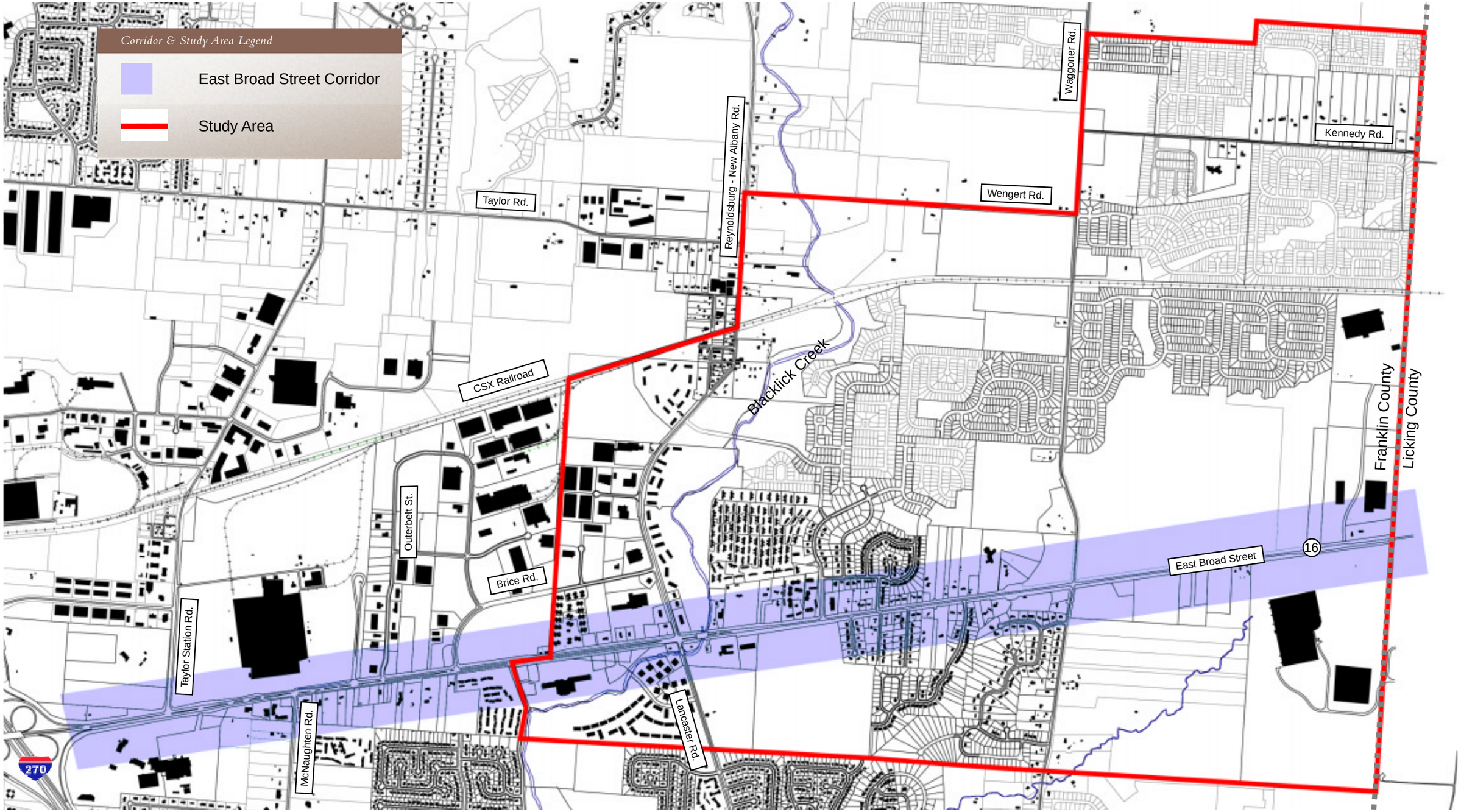

Corridor & Study Area Legend
East Broad Street Corridor
Study Area
Taylor Rd.
Reynoldsburg - New Albany Rd.
Waggoner Rd.
Kennedy Rd.
Wengert Rd.
CSX Railroad
Blacklick Creek
Franklin County
Licking County
Outerbelt St.
Brice Rd.
East Broad Street
16
Taylor Station Rd.
McNaughten Rd.
Lancaster Rd.
270
EAST BROAD STREET STUDY
1500
0
1500
N

Figure • 3

Figure 4, Aerial Photo

the consultant believes that the 2000 estimates do not account for much of the new developments in the area and definitely not the approved but unbuilt developments. Adding these, as discussed later, creates another significant jump in population for this area. It is interesting to note the large increase in school age children in the last decade and the jump in the number of vehicles per household.

B. Land Uses by Acreage

The land use in the study area is varied. The current land uses along the East Broad Street corridor include medical, professional office, light industrial, retail, and residential *(see Figure 5, Land Use).* The corridor is anchored on either end by significant businesses – Mt. Carmel East Hospital and The Limited – but has a mix of industrial, retail and residential in between.

The rural residential sites along East Broad Street are becoming quickly converted into commercial uses – primarily retail – as the corridor quickly redevelops. Most of the major sites have already undergone this transformation, and have done so in a highly fragmented fashion. Most redevelopment that has taken place along the corridor has been done on a piecemeal basis with little regard to the overall function or appearance of the corridor.

Commercial uses are concentrated, as expected, along East Broad Street. The existing development pattern on East Broad Street is a mix of two main uses. The first can best be described as "traditional suburban strip retail." This is typified by a mixture of strip malls, "big box" users and individual retailers in a disjointed series of developed sites. There is little or no interconnectivity between the sites and there is an overabundance of curb cuts onto

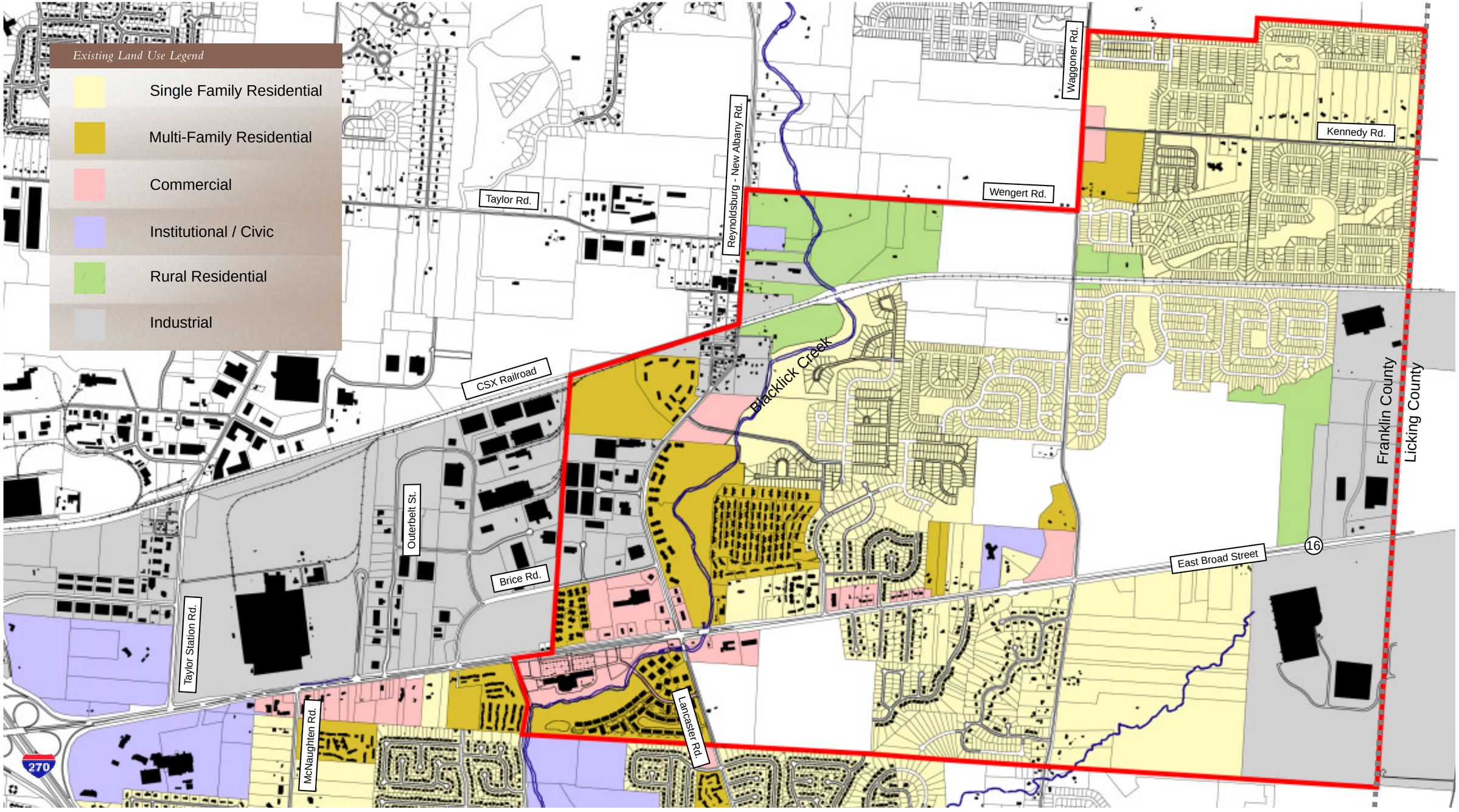

Existing Land Use Legend
Single Family Residential
Multi-Family Residential
Commercial
Institutional / Civic
Rural Residential
Industrial
Taylor Rd.
Reynoldsburg - New Albany Rd.
Waggoner Rd.
Wengert Rd.
Kennedy Rd.
CSX Railroad
Blacklick Creek
Franklin County
Licking County
Outerbelt St.
Brice Rd.
East Broad Street
16
Taylor Station Rd.
McNaughten Rd.
Lancaster Rd.
270
1500
0
1500
N

Figure • 5

Table II: Study Area Land Use

Existing and Currently Zoned

Acreage				Buildings		
Residential				Residential		
Single-Family	1,287.6	Acres	54.1%	Single-Family	3,493	Dwelling Units
Multi-Family	285.0	Acres	12.0%	Multi-Family	1,291	Dwelling Units
Commercial				Commercial		
Office	18.3	Acres	0.8%	Office	173,850	Square Feet
Retail	103.7	Acres	4.4%	Retail	466,650	Square Feet
Industrial	458.0	Acres	19.3%	Industrial	2,977,000	Square Feet
Institutional / Civic	50.0	Acres	2.1%	Institutional /Civic	30,000	Square Feet
Agricultural	106.0	Acres	4.4%			
Open Space	53.3	Acres	2.2%			
Park	17.1	Acres	0.7%			
Total	2,379.0					

Pending Zonings

Acreage				Buildings		
Residential				Residential		
Single-Family	11.4	Acres	4.2%	Single-Family	55	Dwelling Units
Multi-Family	150.9	Acres	55.3%	Multi-Family	1,486	Dwelling Units
Commercial				Commercial		
Office	0.0	Acres	0.0%	Office	0	Square Feet
Retail	60.4	Acres	22.1%	Retail	271,800	Square Feet
Industrial	0.0	Acres	0.0%	Industrial	0	Square Feet
Institutional / Civic	18.7	Acres	6.9%	Institutional/Civic	112,200	Square Feet
Agricultural	0.0	Acres	0.0%			
Open Space	31.3	Acres	11.5%			
Park	0.0	Acres	0.0%			
Total	272.7					

Undeveloped (as planned in this study)

Acreage				Buildings		
Residential				Residential		
Single-Family	78.6	Acres	42.7%	Single-Family	197	Dwelling Units
Multi-Family	21.3	Acres	11.6%	Multi-Family	117	Dwelling Units
Commercial				Commercial		
Office	20.8	Acres	11.3%	Office	197,600	Square Feet
Retail	0.0	Acres	0.0%	Retail	0	Square Feet
Industrial	0.0	Acres	0.0%	Industrial	0	Square Feet
Institutional / Civic	0.0	Acres	0.0%	Institutional/Civic	0	Square Feet
Agricultural	0.0	Acres	0.0%			
Open Space	0.0	Acres	0.0%			
Park	63.2	Acres	34.4%			
Total	183.9					

the main corridor - factors directly contributing to the traffic congestion on East Broad Street. There is very limited pedestrian access along East Broad, and the sidewalks that exist are made uninviting by the lack of overall connections and their close proximity to the high-speed roadway. Aesthetically, the corridor is equally challenged. The majority of the street consists of basic retail sites with large parking lots adjoining the street and an abundance of random signage.

The other major use along the corridor is typical office/ commercial construction. In particular, large employers and a hospital consume major portions of the East Broad Street frontage. These developments also reflect the common practice of placing large parking lots adjacent to roadways with buildings well set back from the roadway. These uses do a much better job of mitigating traffic impacts on East Broad Street with carefully controlled access points and interconnectivity within the large sites. In addition, there is generally a greater greenspace setback from the roadway, providing the opportunity for pedestrian access at a safe distance from this high-speed roadway.

Finally, there is some recent residential construction along the corridor as well as a limited number of existing single-family homes that are likely to redevelop in the future.

Throughout the remaining study area, the vast majority of the land use is residential. There are over 3,500 single family homes on 1,300 acres built or slated for construction in the study area. In addition, there are over 2,700 multifamily units on 435 acres that are built or under construction. There are several industrial sites along Reynoldsburg-New Albany Road. A limited number of small parks are incorporated into the residential areas and some open space areas that include the civic-owned sewer treatment area are the remaining land uses in the study area.

The following charts detail the current land use throughout the area as well as the area that have pending projects and the areas planned in this study *(see Figure 6, Land Development Status)*:

Table III: Land Development Status

Land Status	Acres		Percent of Total*
Existing / zoned area	2379.0	Acres	83.9%
Pending zonings	272.7	Acres	9.6%
Planned	183.9	Acres	6.5%
Total Study Area	2835.6*	Acres	100.0% *

**total acreage does not include street or rail rights-of-ways*

C. Employment

There are several significant employers in the area. The following indicates the approximate employment numbers for the major employers along East Broad. Further analysis and future projections of employment numbers are included in *Section IV. Transit Analysis*.

Table IV: Major East Broad Street Employers

Major Employers	Estimated Employees
Mt. Carmel East	2,750*
Lucent Technology	5,500
The Limited	2,300
Total	10,550

**includes estimated 370 patients per day*

D. Corporate Boundaries

The key to understanding the existing development pattern in the area is to observe land use relative to the corporate boundaries. The study area encompasses land that is predominantly in Columbus, but there are several very significant parcels located in Jefferson Township. Surrounding the study area is a large portion of Jefferson Township as well as the city of Reynoldsburg and the city of Gahanna. The city of Pataskala, located nearby to the east and southeast of the study area, will also create a significant impact on the study area due to increased development and its associated traffic *(see Figure 7, Corporate Boundaries).*

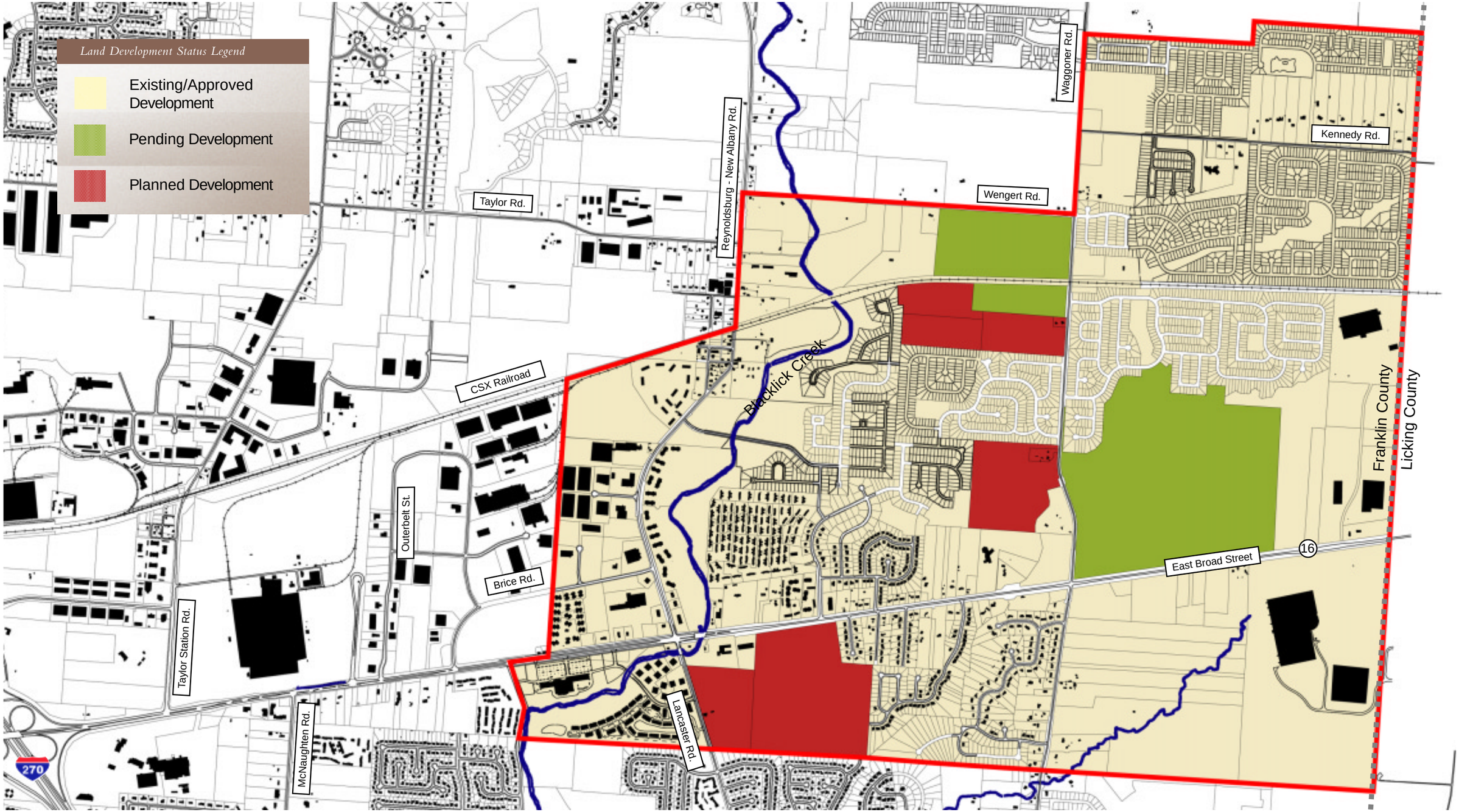

Land Development Status Legend
Existing/Approved Development
Pending Development
Planned Development
Taylor Rd.
Reynoldsburg - New Albany Rd.
Waggoner Rd.
Wengert Rd.
Kennedy Rd.
CSX Railroad
Blacklick Creek
Franklin County
Licking County
Outerbelt St.
Brice Rd.
East Broad Street
16
Taylor Station Rd.
McNaughten Rd.
Lancaster Rd.
270
1500
0
1500
N

Figure • 6

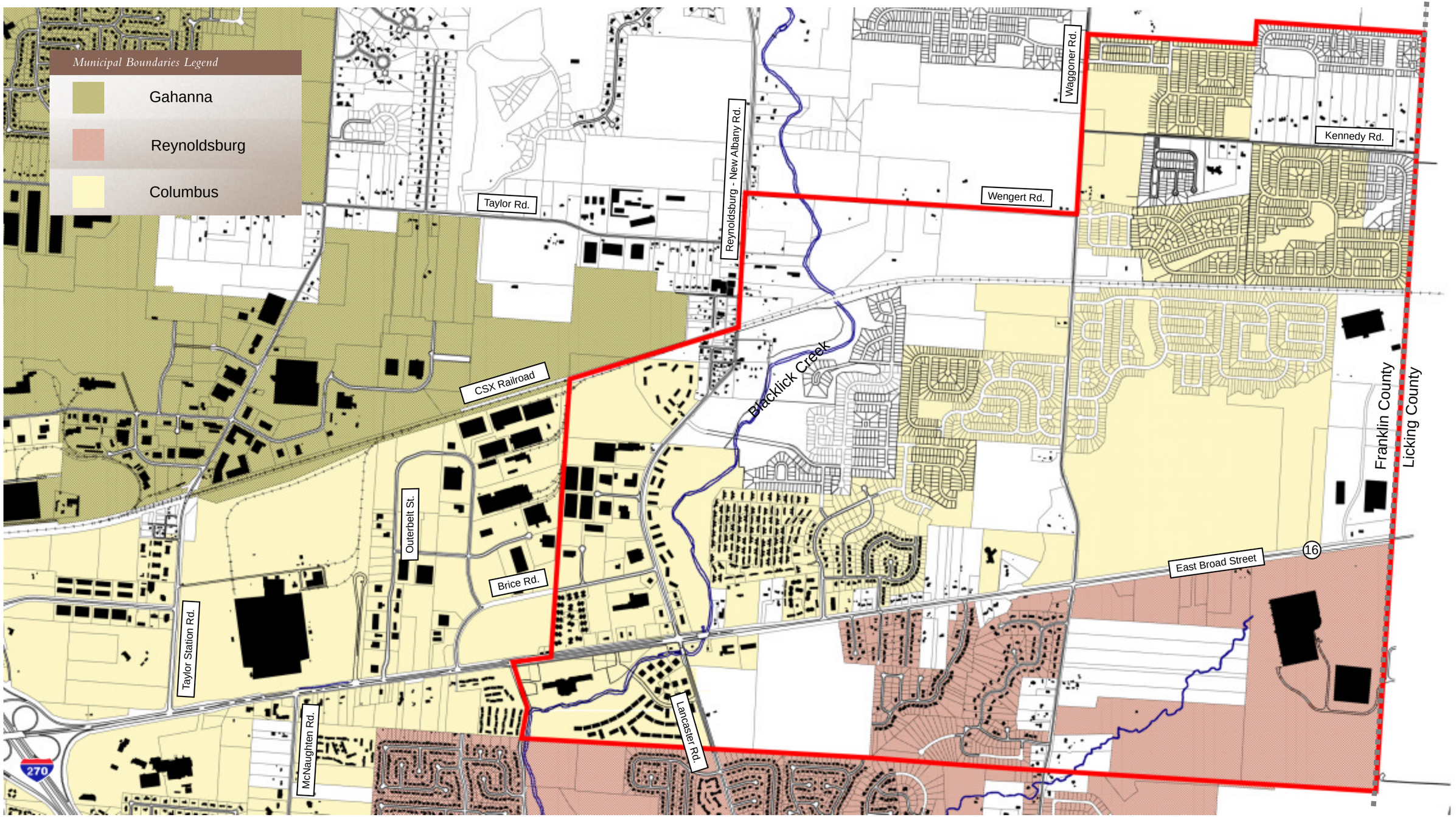

Municipal Boundaries Legend
Gahanna
Reynoldsburg
Columbus
Taylor Rd.
Reynoldsburg - New Albany Rd.
Waggoner Rd.
Wengert Rd.
Kennedy Rd.
CSX Railroad
Blacklick Creek
Franklin County
Licking County
Outerbelt St.
Brice Rd.
Taylor Station Rd.
McNaughten Rd.
Lancaster Rd.
East Broad Street
16
270
1500
0
1500
N

Figure • 7

Table V: Study Area Municipalities

Municipal Jurisdiction	Acres in Study Area
City of Columbus	1376
Jefferson Township	1137
City of Reynoldsburg	530
Truro Township	5
Total	3048

E. School Districts

The component that may be the most important in understanding existing development in the study area is the location of school district boundaries *(see Figure 8, School District Boundaries).* Throughout Central Ohio, land use decisions hinge on this factor. The impact is particularly evident in the decisions regarding residential development where the market drives the value of single family higher in suburban school districts. The result is often a division of residential land use where multifamily uses are concentrated in the Columbus school district and single family is located in the suburban school districts.

Table VI: Study Area School Districts

School Districts	Acres in Study Area
Columbus	500
Gahanna Jefferson	358
Licking Heights	1895
Reynoldsburg	295
Total	3048

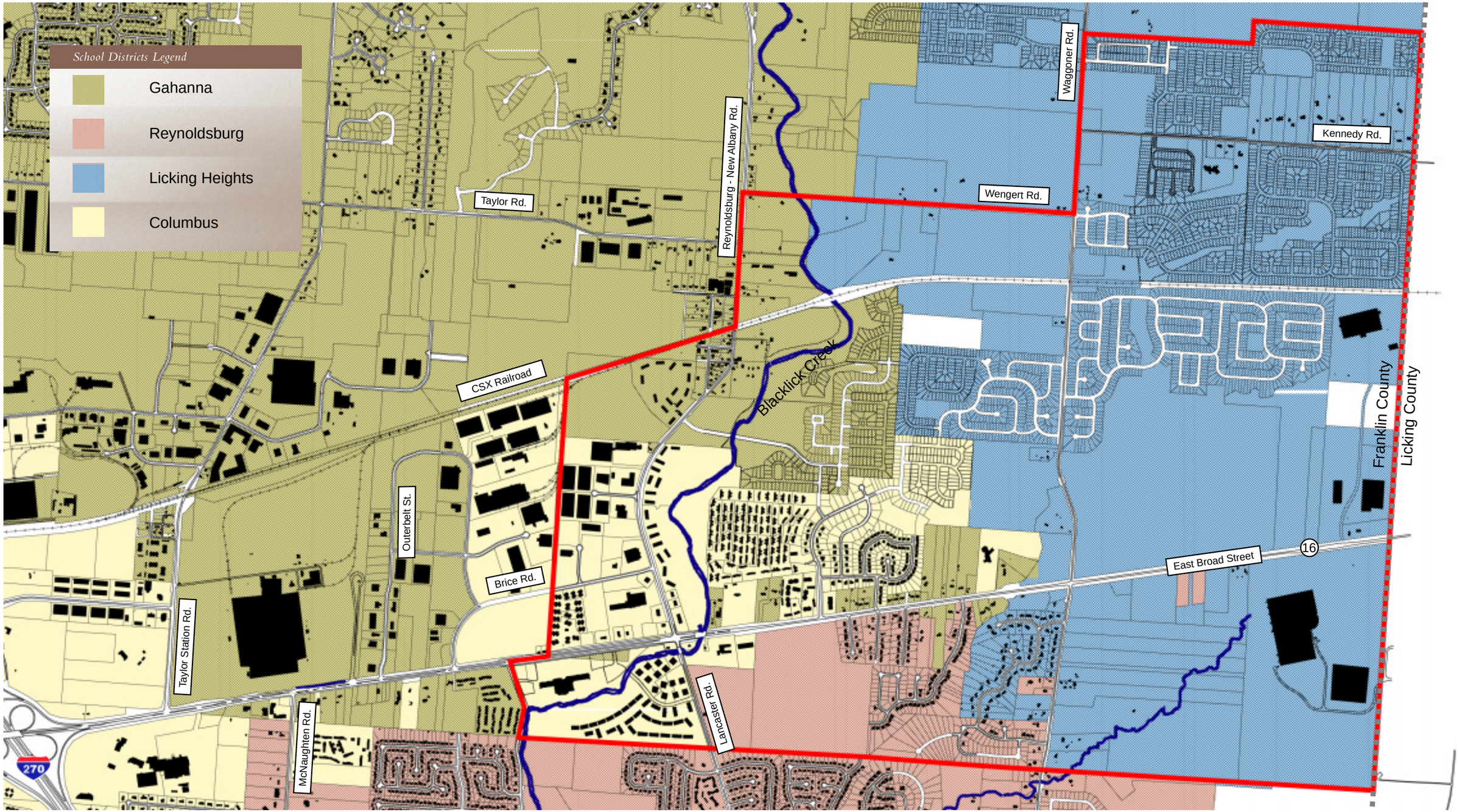

School Districts Legend
Gahanna
Reynoldsburg
Licking Heights
Columbus
Taylor Rd.
Reynoldsburg - New Albany Rd.
Waggoner Rd.
Wengert Rd.
Kennedy Rd.
CSX Railroad
Blacklick Creek
Outerbelt St.
Brice Rd.
Taylor Station Rd.
McNaughten Rd.
Lancaster Rd.
East Broad Street
16
270
Franklin County
Licking County
1500
0
1500
N

Figure • 8

Undeveloped Site Looking west from Waggoner Road, this site has been identified as Focus Area “A”.

Typical Retail/ Commercial View of typical retail/commercial strip mall development fronting East Broad Street.

Pedestrian Circulation View of East Broad Street demonstrating the danger and difficulty of pedestrian movement within the study area.

Natural Ravines Dysart Creek is one example of a natural ravine within the study area that is ideal for linear parks/paths.

CSX Railroad Viewed west from Waggoner Road, the CSX line is an example of a rail that could accommodate commuter trains.

Scenic Road Character View north on Waggoner Road adjacent to Dysart Creek and a proposed park.

Sidewalks View of typical roadways within the East Broad Street study area where sidewalks are virtually nonexistent.

Off Peak Traffic Typical traffic on East Broad Street during off peak periods, looking west to downtown.

New Retail/ Commercial Typical view of retail/ commercial development along East Broad Street. Note right-in/right-out access.

Rural Residential Typical view of rural residential homes along East Broad Street that will become candidates for redevelopment.

I-270/East Broad View from East Broad Street looking west toward the I-270 interchange.

Undeveloped Site Undeveloped site identified as Study Area “C” in this study.

Residential Development Typical view of recent single family residential development occurring within the study area.

III. Streets and Traffic

One of the most significant issues facing residents and commuters in the East Broad Street area of Franklin County (and adjacent Licking County) is traffic congestion. With the large amount of new development, limited east-west road alternatives, numerous curb cuts, and unidirectional peak traffic flow, the traffic congestion on East Broad will continue to increase unless some relief measures are taken. Not only is the congestion frustrating for drivers in the form of higher stress levels and extended travel times – but other negative impacts result such as reduced emergency response levels, decreased property values, and difficulty attracting employees, and added environmental impacts.

This section examines the root causes of traffic congestion in the area and on East Broad Street, discusses possible solutions, and makes recommendations to mitigate and improve traffic flow.

3.1 CURRENT EAST BROAD STREET TRAFFIC SITUATION

Traffic will continue to worsen on Broad Street until it becomes a parking lot during rush hour and lunch times. Some of the large factors influencing this area include the following:

- **Large Amount of Development.** The large amount of development occurring in this area and to the east in Pataskala – particularly residential development – generates a large number of vehicle trips. Single family residential development in this area generates over 9 trips per day per house/unit, and multifamily generates over 7 trips per day.
- **Few East-West Road Alternatives.** There is a shortage of major east-west roadways connecting with Interstate 270 and few east-west road alternatives for local traffic in the study area. As a result, most of the residents and employees within two miles on either side of Broad Street drive north or south to get to Broad Street for both local and commuter trips. This amount of merging traffic creates extremely congested intersections that contribute to long delays.
- **Large Number of Curb Cuts.** The more individual curb cuts there are on a roadway, the more traffic is slowed, and the higher accident rates are. This is particularly true of left turn movements.
- **Major Traffic Patterns are in the Same Direction.** During peak morning hours, a majority of vehicle trips are to East Broad Street and then to the I-270 Interchange or continuing west on Broad Street. This pattern is reversed during evening peak hours. As a result traffic is concentrated on three of the six lanes of Broad Street at each peak.

3.2 TRAFFIC COUNT DATA AND PROJECTIONS FOR EAST BROAD STREET

East Broad Street (S.R. 16) currently consists of four travel lanes. A median was in place between I-270 and Reynoldsburg-New Albany Road until 1997 when ODOT removed it in order to create larger, ten-foot shoulders. Larger shoulders are advocated for rural and limited-access state route areas. With the traffic volumes and number of signalized intersections, this section of East Broad Street operates as an urban arterial. The City's thoroughfare plan shows the recommended East Broad Street right-of-way to be 160 feet from I-270 to Reynoldsburg-New Albany Road, and 120 feet from Reynoldsburg-New Albany Road to the Licking County Line. This right-of-way does allow for expansion. The Ohio Department of Transportation (ODOT) currently has no plan to study an interchange modification on East Broad Street or any potential widening on the eastern section of I-270, nor would this likely solve the traffic problems of today or the near future. So, while East Broad Street has the potential to be widened, it is not likely to be widened to carry a traffic capacity greater than the capacity of I-270.

The following points indicate the impacts of development on East Broad Street *(For additional data, including specific traffic counts please see Appendix B, Access Management Plan for the East Broad Street Corridor.)*:

- The current average daily traffic (ADT) count on East Broad Street is 40,000. Using a conservative annual traffic growth rate of two percent (2%), this will amount to a 65,000 ADT rate by 2020. Mid-Ohio regional Planning Commission projections for 2020 show volumes of up to 58,000 ADT.
- For comparison purposes, I-270 currently has between 120,000 and 150,000 ADT. Thus by 2020, East Broad Street will likely be carrying half of the traffic currently experienced on an urban interstate highway system.
- Current development trends in Pataskala suggest that the traffic growth rate could be closer to double digits for several years, pushing the traffic counts even higher. Most of the land along the East Broad Street corridor in Franklin County will be built-out by 2010. However, much of the land along Broad Street (State Route 16) in Licking County is now incorporated and is rapidly developing between the county line and Granville (where S.R. 16 merges with S.R. 161).

3.3 IMPACTS OF EAST BROAD STREET TRAFFIC

The continued increase in traffic on East Broad Street will eventually lead to failure of the system. The following is a few of the negative impacts of this level of traffic, some of which are already beginning to occur:

- Wasted work and leisure time spent sitting in vehicles
- Lateness to work and appointments
- Higher ozone and car emission levels
- Higher stress and tension levels
- Higher energy consumption
- Reduction in emergency response levels
- Difficulty attracting and retaining employees
- Decrease in property values

3.4 POSSIBLE SOLUTIONS TO EAST BROAD STREET GRIDLOCK

Addressing the problem of congestion on East Broad Street will require many actions. There is a great deal of difficulty in trying to implement changes even if they will be necessary to ensure continued acceptable operation of the roadway. Here are some possible steps to addressing East Broad Street congestion:

- **Change societal values to encourage car-pooling and/or limiting single-passenger automobile usage.** Problem – voluntary measures to achieve this have been largely unsuccessful.
- **Halt any additional development in the area.** Problem – this is difficult to do without stronger state legislation and more broad-based public support. Also, Columbus has no control over what happens to the east in Licking County.
- **Stagger work hours.** Problem – businesses have shown a reluctance to require staggered work hours or shifts to off-peak times.
- **Widen East Broad Street.** Problems – the Federal Highway Administration has indicated that I-270 and I-270 interchanges in this area are built to their greatest extent and that Central Ohio should not expect or plan on them to be widened in the future. It does no good to widen East Broad Street beyond the capacity of the interchange ramps and I-270. As a result, East Broad Street should not be widened beyond six through lanes (three each way). Widening East Broad Street will require additional right-of-way in some areas.
- **Create reversible lanes to reflect peak directional flows.** Problems – While this concept attempts to maximize the utilization of the current pavement width, maintaining left turn access to the commercial and retail sites must be considered. An additional lane of traffic may be needed, implementation would require an electronic message system that may be expensive to install and operate.
- **Build separate express and local traffic lanes.** Problems – In order to reflect the function of East Broad Street as a major commuter route, separating local destination traffic from traffic on the way to downtown Columbus or I-270 will require expensive grade separated facilities. Access to adjacent properties would also be affected.

• **Build alternate, parallel road systems.** Problems – Developers and residents resist the interconnection of subdivisions. Most of the land surrounding East Broad Street from the Licking County line to I-270 has been developed or zoned for development. It would take a concerted effort and large political will, not to mention dollars, for Columbus, Reynoldsburg, and Jefferson Township to purchase land and remove structures in existing developments create these roads. It is more likely that connections could be established in conjunction with the development of the remaining sites along the East Broad Street corridor. Such roads will help, but the roadway network must still connect to Broad Street in order to access I-270 (no new interchanges will be built on I-270).

• **Limit access points to East Broad Street.** Problem – this will require existing lots and businesses to give up access points and share them. This will require coordinated development between smaller parcels and may result in some additional effort by commuters to reach to some parcels.

• **Increase the use of mass transit – including rail.** Problem – COTA needs more operating revenues to offer expanded bus routes and more frequent service needed to be effective here. A passenger rail alternative does not exist and will require on-going funding and support. Levies for both increased buses and mass transit have met with only lukewarm support in the past.

3.5 GENERAL STRATEGIES FOR EAST BROAD STREET RECOMMENDED BY THIS PLAN.

A. Add Median to East Broad during widening

The best solution for a functional and aesthetic improvement to the East Broad Street corridor is the addition of a planted median *(see Figures 9 and 10, East Broad Street Plans and Sections).* The city of Columbus has determined that the roadway will need to be widened. This study agrees that this roadway widening will be needed and recommends three lanes in either direction. This is needed due the existing development in the area as well as the on going development of areas to the east *(see Figures 11, East Broad Street Corridor Analysis).* Adding a median to the roadway during widening accomplishes several objectives. The first is that the median helps to control traffic flow by limiting and controlling full access points along the route. The expanded roadway will maximize traffic flow under this scenario; thereby utilizing this increasingly overburdened roadway to the best degree. When the difficulty and expense of widening East Broad Street is undertaken, it only makes sense that the most effective roadway be installed since these improvements will have to support the traffic demands of this area for many years to come. The impacts regarding limiting access points along East Broad Street is explained further in strategy “B” below.

The other advantage of the median is that it creates a visual separation in this increasingly wide valley of asphalt that is needed for East Broad to support development in the area. With such a wide corridor, it is very difficult to create a quality streetscape. This median will create an additional streetscape edge, bringing the scale down to one that is more manageable from the perspective of pedestrian and alternative transportation options.

B. Limit access points on East Broad Street

The major method of improving the operation of East Broad Street is to implement an effective access management plan. The access management plan that has been included as part of this study *(see appendix B, East Broad Street Access Management Plan)* suggests the following among a number of recommendations (subject to modification as future safety and operational needs dictate):

- Install a landscaped median to manage access in the corridor and minimize left turn related accidents
- Plan locations for new traffic signals and median U-turns to provide access while maintaining safety and Access Management principles in the corridor.
- Plan the future widening/median projects with corresponding streetscape, pedestrian, and bike improvements.


5'-10' BIKE / WALKING PATH & LANDSCAPE BUFFER
+/- 10' CURB LAWN W/ STREET TREES
(3) 11'-12' DRIVING LANES
18' -20' PLANTED MEDIAN W/ STREET TREES & EVERGREEN SHRUBS (OPT.)
(3) 11'-12' DRIVING LANES
+/- 10' CURB LAWN W/ STREET TREES
5'-10' BIKE / WALKING PATH & LANDSCAPE BUFFER

Figure • 9


1500
0
1500
N


5'-10' BIKE / WALKING PATH & LANDSCAPE BUFFER
+/- 10' CURB LAWN W/ STREET TREES
(3) 11'-12' DRIVING LANES
18' -20' PLANTED MEDIAN W/ STREET TREES & EVERGREEN SHRUBS (OPT.)
(3) 11'-12' DRIVING LANES
+/- 10' CURB LAWN W/ STREET TREES
5'-10' BIKE / WALKING PATH & LANDSCAPE BUFFER

Figure • 9


1500
0
1500
N

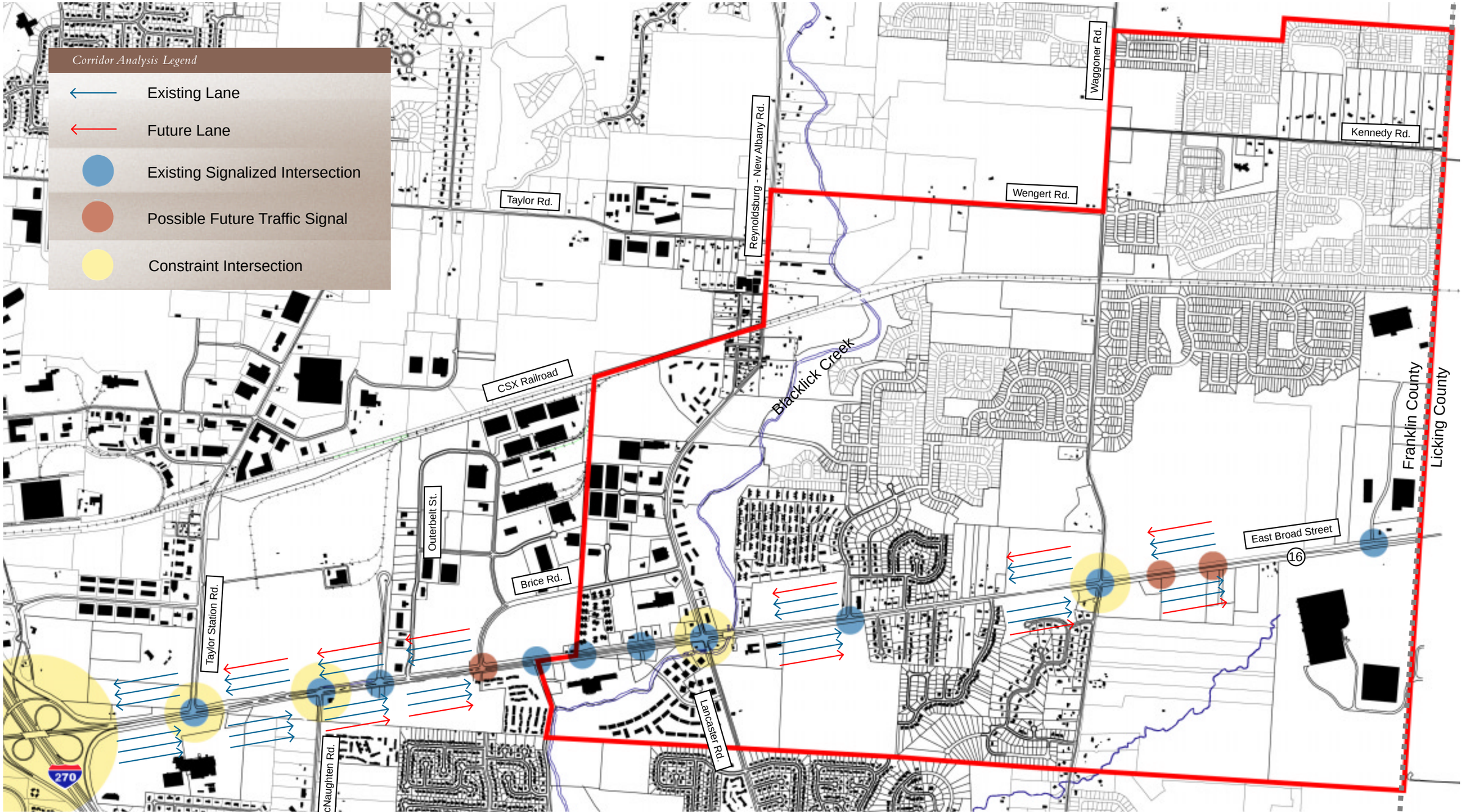

Corridor Analysis Legend
Existing Lane
Future Lane
Existing Signalized Intersection
Possible Future Traffic Signal
Constraint Intersection
Taylor Rd.
Reynoldsburg - New Albany Rd.
Waggoner Rd.
Kennedy Rd.
Wengert Rd.
CSX Railroad
Blacklick Creek
Franklin County
Licking County
Outerbelt St.
Brice Rd.
East Broad Street
16
Taylor Station Rd.
Lancaster Rd.
McNaughten Rd.
270
1500
0
1500
N

Figure • 11

The advantage of controlled access is the elimination of many turning movements that impede the overall traffic flow and lead to higher collisions. From a planning perspective, high interconnectivity of a roadway pattern with the opportunity for a variety of vehicular movements is usually encouraged. This would include full access to cross streets at relatively short intervals. Unfortunately this strategy cannot be advocated in this case due to the conditions that exist along the East Broad Street corridor. The first is the lack of an interconnected network of collector streets throughout the study area. Instead of smaller development blocks with a series of east-west and north-south connectors, there are just a few major north-south roadways that funnel most of the area traffic back onto East Broad Street. In addition, the existing development along the corridor has occurred without any vehicular interconnectivity, requires the user to enter and exit East Broad Street repeatedly from an overabundance of curb cuts while attempting to perform even a limited number of errands in the area. This, coupled with the ever-increasing development pressure and its related traffic from the east, has led to this recommendation of limiting access points along East Broad Street.

Limiting access would best be accomplished in conjunction with a median as described above. Full access points have been identified for the corridor and include all major intersections as well as employee access points for The Limited and Lucent Technologies as well as at the existing large retail sites. Special considerations will also be made for the emergency vehicle access for Mt. Carmel East Hospital where full access is limited to emergency vehicles only. Remaining curb cuts along the corridor would then be limited to a right-in-right-out configuration.

Positive results of this strategy would include:

- Maximizing the traffic flow along East Broad Street.
- Decrease in accidents caused by left turn movements.
- Location of safer crossings for pedestrians and bicyclists at full access intersections.

C. Create additional east-west roads parallel to Broad Street and interconnect developments.

To reduce the traffic burden on East Broad Street it will be necessary to provide additional vehicular connections in the area. Currently, there are no good alternatives to East Broad Street for east-west movement in the study area. As commuter levels continue to rise on East Broad, it is vital that those driving within the area have the option of travelling between local destinations without having to use this roadway. This will be accomplished by creating additional east-west connections within new developments and between those developments and existing roadways. The following are suggested locations for east-west roadway connections *(see Figure 12, Recommended Roadway Connections)*:

- Waggoner Road to Taylor Road through the Waggoner Park development.
- Reynoldsburg-New Albany Road to Kingsmeadow Lane Road through any future development in focus area D.
- In the northern portion of the Study Area between Waggoner Road and Reynoldsburg-New Albany Road. Hopefully this would be in some alignment with Taylor, Wengert, and Kennedy Roads, The specific alignment to be determined at a later time.
- East from Astra Circle through any future development.

D. Encourage development that creates opposite peak flows

East Broad continues to support the traffic flows for commuters travelling both downtown and to the I-270 ramps. The peak flows will only continue to increase as residential development swells in Licking County and employers continue to locate around the outerbelt. Any new development in this area will only add to this problem. If development is to continue here, new uses must either generate traffic at an off-peak time or create opposite traffic flow. Currently, the vast majority of commuters drive through this area during rush hour in an attempt to reach I-270 or downtown.

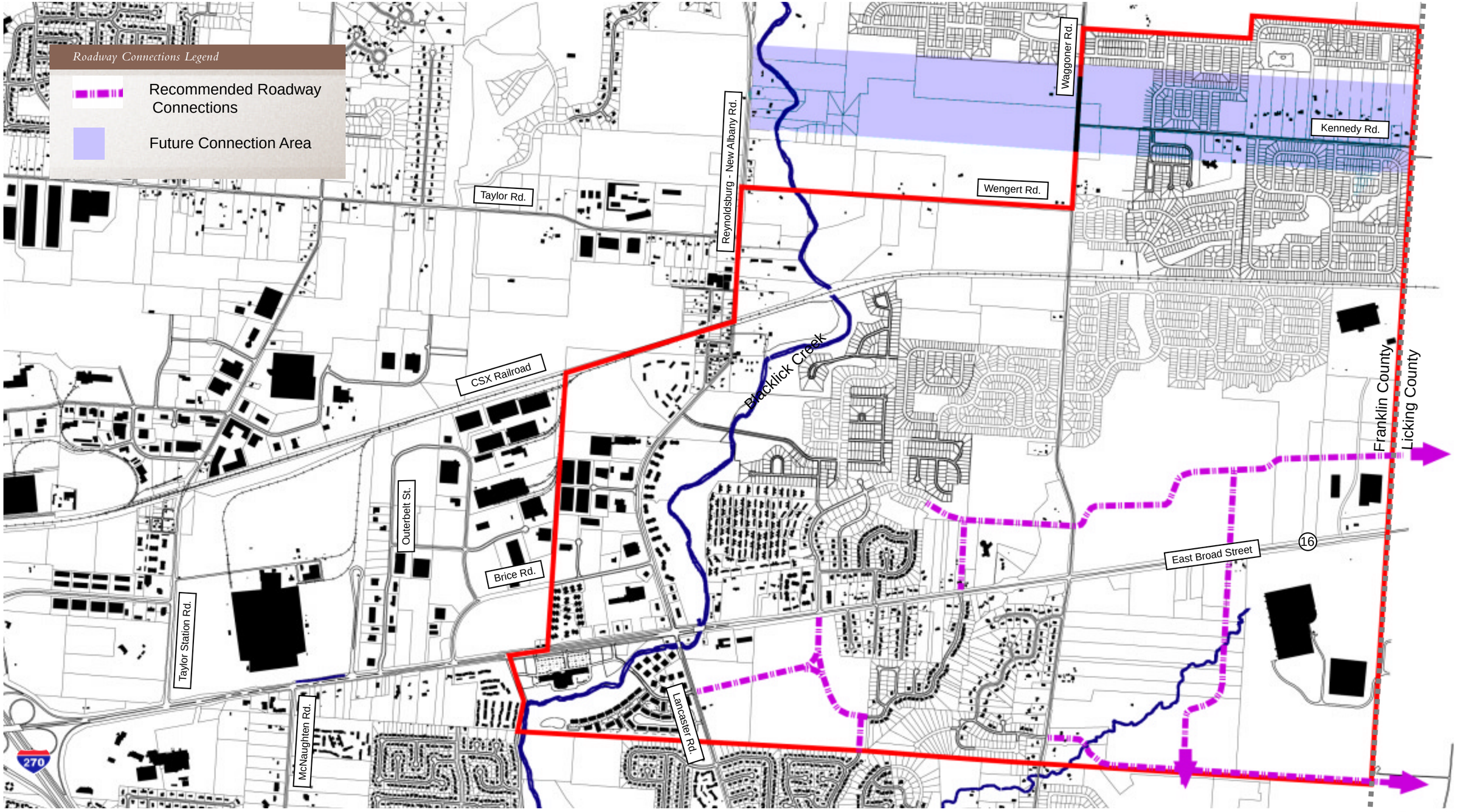

Roadway Connections Legend
Recommended Roadway Connections
Future Connection Area
Taylor Rd.
Reynoldsburg - New Albany Rd.
Waggoner Rd.
Kennedy Rd.
Wengert Rd.
CSX Railroad
Blacklick Creek
Franklin County
Licking County
Outerbelt St.
Brice Rd.
East Broad Street
16
Taylor Station Rd.
McNaughten Rd.
Lancaster Rd.
270
1500
0
1500
N

Figure • 12

Additional office users would attract some extra traffic to the area, but much would come into the area off of I-270, reversing the traffic flow, and other commuters would be absorbed from those already on East Broad. During the peak PM hours, the reverse effect would occur, allowing employees from the west to avoid heavy traffic flows and those from the east to avoid using the interstate. The market will continue to drive the development pressures that influence this area, however, careful consideration should be given to the larger impact of any land use decision made along the corridor. Much like the notion of controlling access points, this recommendation is a response to the real-world conditions in place in the study area. Clearly, the course of action resulting in the least impact on traffic is the lack of further development in the area, but the established development pattern in the area indicates that this is extremely unlikely.

E. Advocate mass transit alternatives

The long-term solution to the traffic issues on East Broad Street is developing a workable mass transit option for the corridor. Light rail would serve this area particularly well due to the ability of a single rail corridor in this area to link downtown, the airport, multiple employers, a large hospital campus, and a great deal of residential development. The existing railroad lines in the area run parallel with East Broad Street which is compatible with servicing those travelling west to work during the AM peak hours as well as servicing those travelling to employment centers in the study area.

F. Require cross-access lanes for redeveloping East Broad Street lots

If development is to continue here, additional east-west roadway connections must be created. Many remaining parcels are too small or too narrow to accommodate a roadway without coordination among neighboring developments. This issue is likely to arise in the redevelopment of rural residential lots along East Broad Street. These lots are generally narrow and deep, creating some development challenges. In these cases the best option will be to create cross-access lanes to interconnect individual development pieces. This will allow development to occur in stages while maintaining long-term access and upholding design standards. The cross-access lanes should be located toward the rear of the sites, adjacent to parking areas which in turn are located behind buildings.

G. Encourage open space preservation in close proximity to East Broad Street

The East Broad Street are is greatly in need of open space and parkland. Fulfilling this need through preservation of land accomplishes several goals. While assuming an end to development is unrealistic, preserving open space in conjunction with this development, can reduce the overall traffic impact by reducing the amount of developed acres. In addition, any open space and parkland preserved along East Broad Street will assist in the long-term goal of improving the appearance of the aesthetically unappealing corridor.

3.6 GENERAL DESIGN STANDARDS FOR EAST BROAD STREET

A great deal of development is already in place along the East Broad Street corridor. Unfortunately, the majority of this has been built with little regard to the overall impact on the area. The lack of interconnectivity between the sites and the lack of any design considerations for the corridor has resulted in significant traffic and aesthetic impacts of this mix of uses. The practice of making each site eminently convenient to the automobile by placing large fields of parking adjacent to the roadway has now backfired. The preponderance of roadway curb cuts and conflicting parking movements has resulted in increased problems on East Broad Street, exacerbated by the constantly rising traffic volumes in the area. There exists no cohesive streetscape with regard to overall appearance or functionality. The building orientations and preponderance of individual parking lots allow practical access only to those in automobiles.

Streets and Traffic

Residents choosing to attempt pedestrian access, while in close proximity to the retail and grocery stores, would find it difficult if not hazardous to walk down the street to shop. There is also a complete lack of bicycle facilities along the East Broad Street corridor and the surrounding area.

A public process will be needed to determine the standards needed for the corridor. Issues of existing development and standards for adjacent properties will likely be discussed, but it is important that standards are developed to control the eventual redevelopment of the area. While many of the larger sites have been built out, there are still many smaller ones that can, taken as a whole, have a large impact on the appearance of the area.

The following are general design standards that should be applied to all development and redevelopment along East Broad Street. With overlay standards in place and consistently applied to development, the overall appearance and function on the East Broad Street corridor will steadily improve. This is merely a general guideline, however, and more detailed design standards should be developed.

- Buildings should be placed adjacent to an established setback (a build-to line), with parking located to the sides and rear, except for instances of public safety.
- Sidewalks and/or bike paths should be constructed along all public rights-of-way.
- The typical street section should include a sidewalk with a separation from the roadway surface. A separate bike path can be considered if driveway conflicts are expected to be at a minimum. There should be a minimum ten-foot tree lawn located between the edge of the curb and the sidewalk/bike path.
- Street trees should be planted at 40 feet on center.
- Adjacent sites should allow vehicular inter-connection by providing cross-access easements.
- A minimum 3' screening hedge for all parking (evergreen hedge or masonry wall) should be required.
- Primary buildings must always front onto a public street.
- All sides of a building facing a public street, right-of-way, or public green must be made of compatible materials and style as the other sides of the building.
- Individual building lengths shall not exceed 200 feet.
- All buildings shall have a main entrance on a primary street.
- All lots shall front on public or private roads.
- Paths or sidewalks internal to a development shall be linked to external sidewalks or trails.
- Woodlands shall be preserved and protected to the greatest extent possible.
- Flood plain areas shall be incorporated into open space as much as possible.

In addition, the following standards should be considered,

- Lighting standards with a maximum height limit.
- Signage more closely regulated by size, type and quantity.
- Higher minimum landscaping standards.
- Consider parking maximum limits instead of minimums for some type of uses.
- Adopt minimum architectural standards that require massing to be broken up to maintain a pedestrian scale.
- Determine a maximum height for buildings.

EAST BROAD STREET STUDY

IV. Land Use and Development

The East Broad Street study area is nearly built-out. Only a few vacant sites remain undeveloped. The existing development does not follow a plan, as no specific guidelines are in place to determine building orientation or design standards. The area has not been developed with consideration of long-term traffic management strategies for East Broad Street. The curb cuts are random and numerous. The flow between, to, and from sites is not consistent or convenient for anyone, including the automobile driver. As the remaining vacant sites are developed, it will be important to pay special attention to the details of how the sites relate to the adjacent properties. In particular, a careful mix of land uses should be considered that are compatible with well-developed vehicular and pedestrian systems. These connections must be made both throughout the sites and between new and existing development.

4.1 FOCUS AREAS

To investigate the potential for remaining development in the area, four focus areas were chosen as the basis for our design studies *(see Figure 13, Focus Areas).* The goal was to develop appropriate development strategies that respond to the existing conditions in the area while incorporating the principles expressed in the new Traditional Neighborhood Development and Transit Oriented Development codes being developed by the city of Columbus. Selection of the four sites was not particularly difficult due to the limited number of sizable undeveloped sites left in the study area. In each Focus Area study, the principles most important for benefit to the overall region were incorporated. Some may argue that, based on the congestion of the East Broad Street corridor, the best strategy for the area is to cease with all future development. If it were possible to halt the increase in traffic through the area from nearby jurisdictions and if there were the political will to halt development in the area, this might be an option. We see neither of these possibilities in evidence. Instead, each of the focus area plans addresses some aspect of the overcrowding on the roadway system of the area and the piecemeal approach that has been the standard for development up to this point. In addition, the zoning process for several of the sites considered here had significantly progressed by the time this study was undertaken. The result was that major principles were all that could be upheld in some cases, rather than all of the specific details that it would have been preferable to influence.

4.1.1 FOCUS AREA A

This 119-acre site is located in the northern portion of the study area and is bisected by a major rail corridor *(see Figure 14, Focus Area A).* This site was under zoning consideration at the time of this study. Separate zoning applications have been filed with the city of Columbus for the northern and southern portions of the site. Due to the proximity to the rail corridor, Columbus Staff had discussions with the developer of the northern portion of the site regarding siting of a transit station in the area. This is an excellent opportunity to begin forming the backbone of a long-term transit system on the area and the site could also help serve with short-term transit needs.

Due to the potential for a transit station on the site, the Transit Oriented Development code was applied to this location. This code allows for a variety of uses at mixed densities and encourages interconnectivity between the uses on the site with the transit station as well as the surrounding area. The development plan created for the site investigates the opportunities for transit oriented development within the context of the study area. In many respects the location is favorable for this type of development. The location of the rail line points to an obvious advantage if light rail is ever developed in Columbus. This would be an ideal rail corridor with access to downtown, the airport, proximity to the employers on this portion of East Broad Street, and access into Licking County. In addition, the proximity to a number of residential units could help establish this

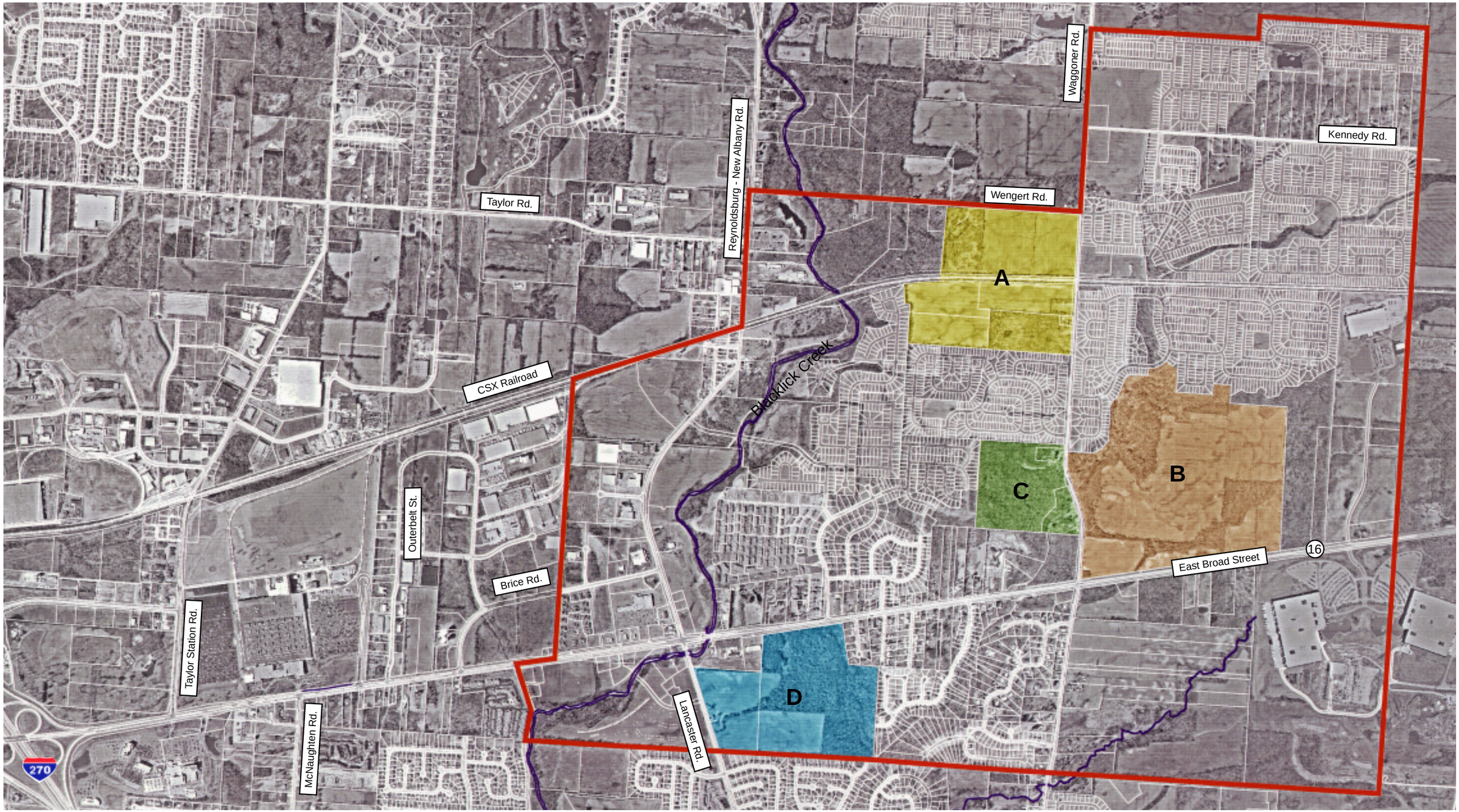
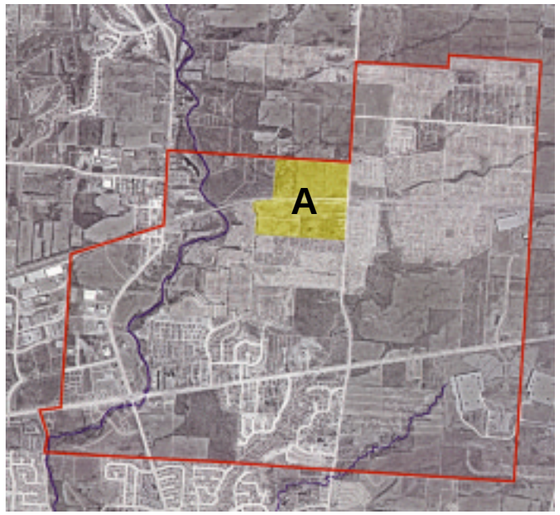
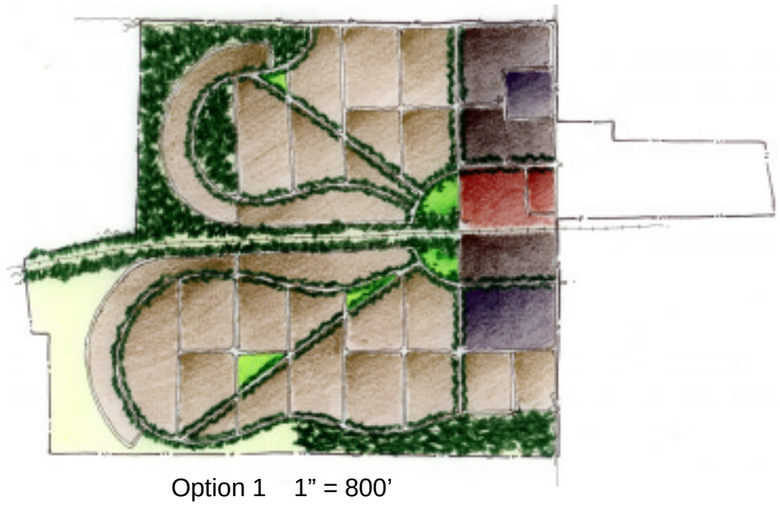

Taylor Rd.
Reynoldsburg - New Albany Rd.
Waggoner Rd.
Kennedy Rd.
Wengert Rd.
A
CSX Railroad
Blacklick Creek
C
B
Outerbelt St.
Brice Rd.
East Broad Street
16
Taylor Station Rd.
D
Lancaster Rd.
McNaughten Rd.
270
1500
0
1500
N

Figure • 13

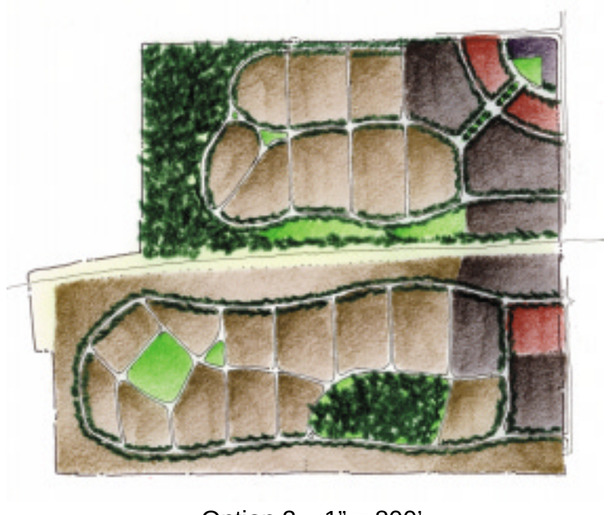




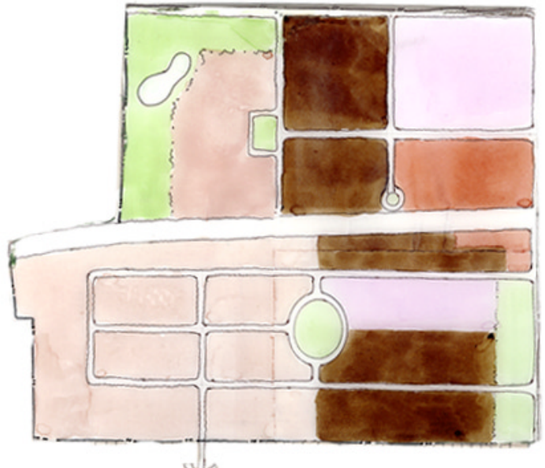
Option 1 1” = 800’

Option 1 Isometric

Option 1 Detail 1” = 400’



Option 2 1” = 800’



Option 3 1” = 800’

Figure • 14

line as a commuting link. A pedestrian trail link could be established into this area from the nearby multifamily developments, increasing local access. Without light rail, the area could still serve as a hub for local bus service, setting up as a transfer point between the smaller local shuttle buses servicing local employers and the larger buses on major routes throughout the county.

The approach taken on this site was to create two design options with a strict interpretation of the TND and TOD standards. A combination of uses and densities were contemplated and focused around a commercial/civic core near Waggoner Road. Both options attempt to use open space as an organizational element while preserving existing wooded portions of the site. Interconnectivity throughout the site was stressed. Unfortunately, connections between the northern and southern portions of the site are difficult to achieve due to the location of the rail line. One long-term solution might be pedestrian access over the rail line provided by the development of a light rail station on the site.

In addition to these design concepts, we prepared a modified interpretation of the TND/TOD codes in response to pending zoning applications for the site *(see figure 14, Option 2 - Focus Area A).* Two separate applications have been filed – one for the northern portion of the site, and the other for the southern. The land uses proposed are within the concepts considered by the new codes. The application for the northern portion contains plans for a church, as well as multifamily, senior, and single family housing. If designed properly, these uses could work well on this site. In addition, the opportunity for shared parking between the church and transit station would greatly help the design of the site by creating a functional development without overdeveloping the site with extensive parking areas.

The following are the design criteria that were contemplated in Option 3:

- Parking should be located internally to site for commercial/public/institutional uses. In particular, parking should not be adjacent to primary roadways, but should be located to the rear and sides of buildings. On Waggoner and Wengert Roads, the building setback should be closer than the parking setback.
- No residential, institutional, or commercial structures can back onto public rights-of-way or public parks.
- An interconnected roadway network must be developed that includes access to both Waggoner Road and Wengert Road.
- Densities should be highest closest to Waggoner. The residential uses should transition from the transit portion of the site to multifamily and then into single-family residential.
- Subareas should follow the intent of the Traditional Neighborhood Design code and/or the Transit Oriented Development code currently under development by the City of Columbus.
- Usable public open space must be provided on the site within 1200' of all dwelling units.
- Parkland should be used as an orienting device for the development.

The application for the southern portion of the site contemplates a mix of residential types including a senior care center. The same development standards enumerated above should also apply to this site. When taken as a whole with the northern portion of the site, the entire project has the potential to fit neatly into the concept of mixed-use development advocated by the TND code. In particular, the location of senior housing near a transit center is a naturally symbiotic relationship considering that many residents may no longer wish to drive or have access to an automobile. Important for this site is developing alternate access routes so that all traffic is not directed onto Waggoner Road.

4.1.2 FOCUS AREA B

This 216-acre site is located along East Broad Street, immediately east of Waggoner Road *(see Figure 15, Focus Area B).* The zoning process for this site was nearly complete by the commencement of this study. Due to this, the zoning contains several "big box" development subareas that do not conform to traditional neighborhood design standards. Since the property was already largely zoned, there was no recourse to prevent the establishment of these uses on the site. However, other important aspects of the plan were noted, which did not adhere to the standards established by this plan. The Focus Area design plan was developed in response to the pending zoning. The original concept was modified in order to improve upon aspects of the plan within the context of what was already allowed on the site.

The following three major issues were addressed in the analysis of this development:

- The importance of establishing connectivity in the roadway network – specifically additional east-west roadways to help ease the burden placed upon East Broad Street.
- The need to respect the significant natural feature on the site – the large wooded ravine and Dysart Creek – with an appropriate setback to allow it to become part of the future recreation system for the area. This setback must be large enough to accommodate a bike/walking path along the top of the ravine.
- The need to establish a legitimate urban roadway entering the development through the establishment of pedestrian-scale streetscapes. This opportunity was largely lost due to the "big-box" nature of the uses in a large portion of the development. Along the main eastern entry road, however, the opportunity remained to establish a more pedestrian-scale of development.

Additional concerns for this focus area include:

- Reduction of the number of curb cuts on East Broad Street.
- Impacts of development on existing waterways on the site.

The resulting development has incorporated some of the standards that were advocated in the analysis. In particular, an east-west roadway has been

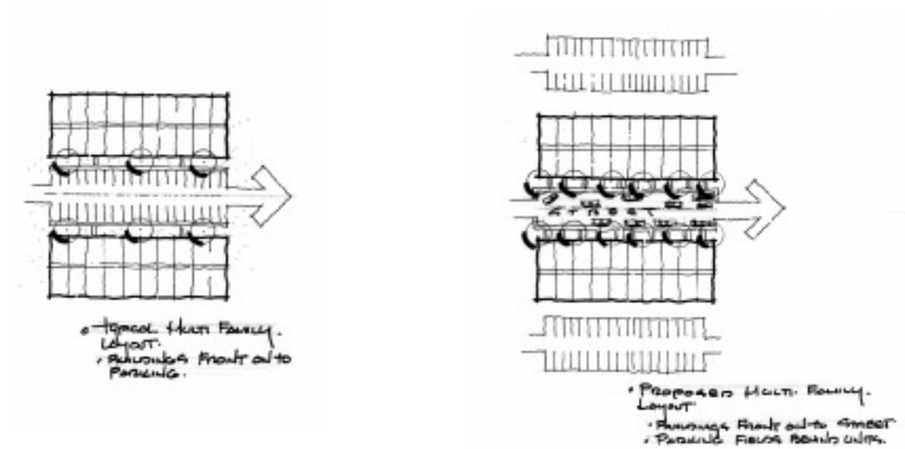
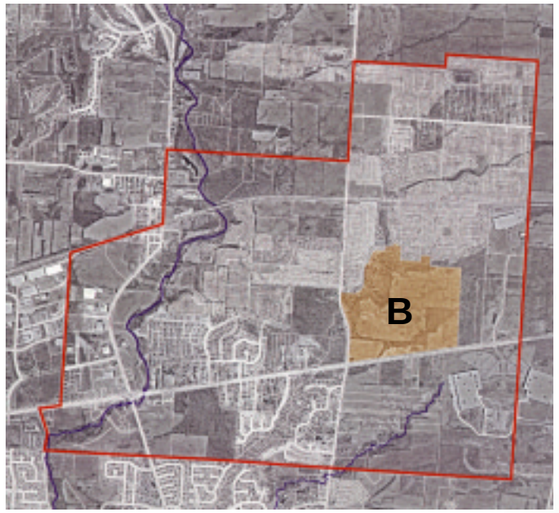


Figure 16, Focus Area B Multi-Family Study



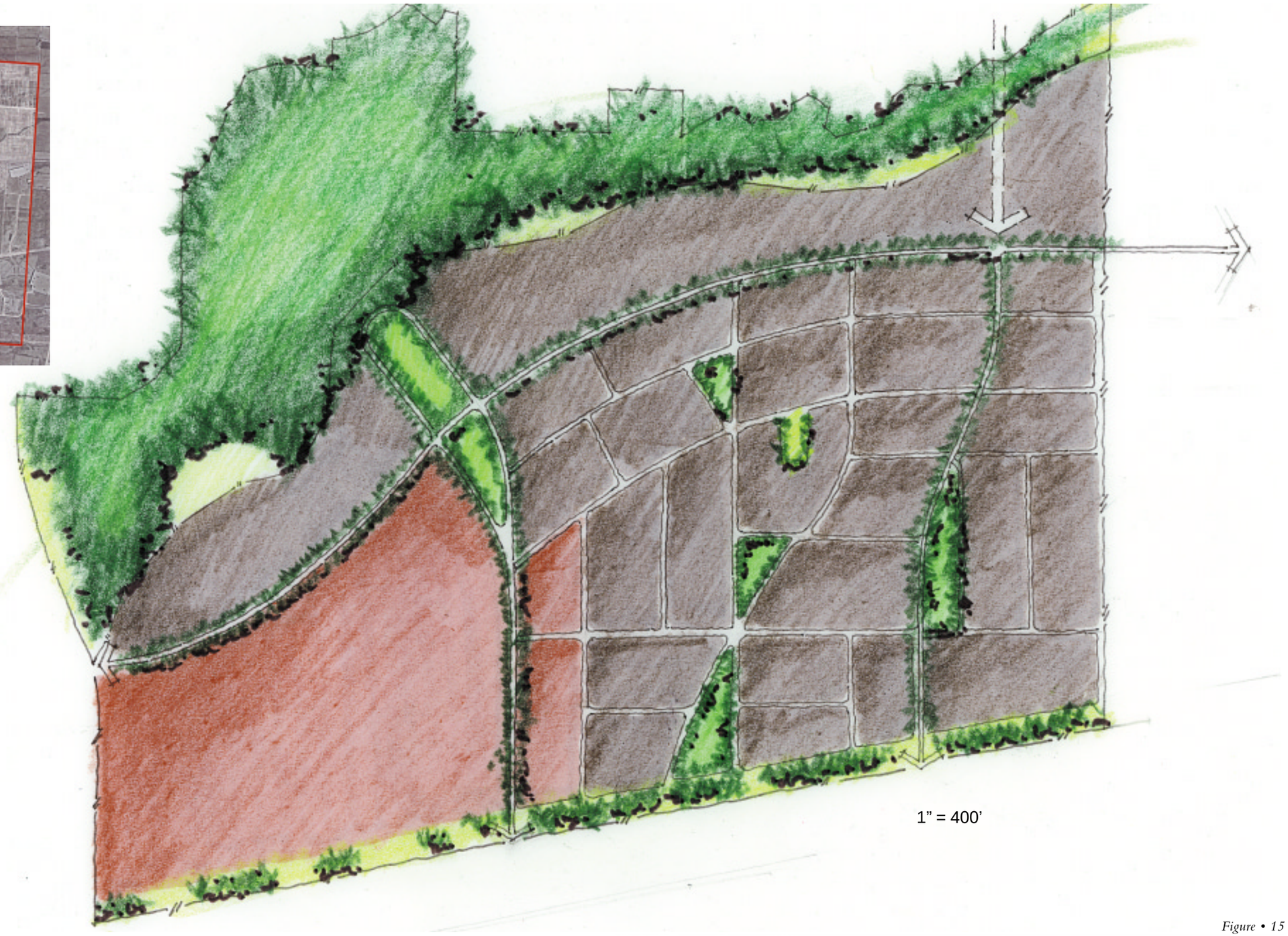
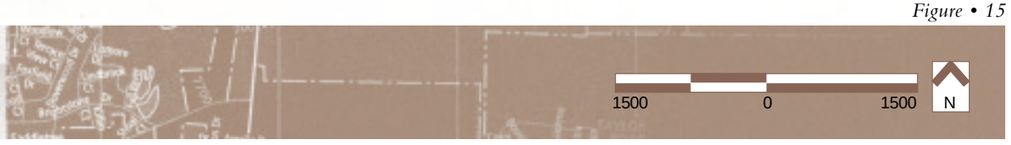


Figure • 15



established through the site that connects to Waggoner and may be extended to the east with further development in the area. The roadway will be built to city of Columbus standards. The only parking allowed along the roadway will be parallel, thereby maintaining the feel of this connection as an actual neighborhood street. Buildings have been sited to front onto the roadway.

Secondly, an area has been designated along the wooded ravine for open space preservation and the location of a bike path. This will create and important link in the eventual connectivity of the pathway system in the area.

The roadway connections into the site from East Broad were more of a challenge. The concept of creating an inviting neighborhood feel to the roadway is difficult to achieve in conjunction with siting "big box" users. The resulting plan sites several buildings adjacent to the entry drive with parking located behind them and preserves open space that exists adjacent to the roadway. The large parking area for the "big box" retailer will be difficult to accommodate within the context of TND standards, however. A concept plan has been developed in the context of the existing zoning. Due to the "big box" component of the zoning, there is difficulty applying TND standards to the site, but there are still several improvements that are possible *(see Figure 17, Focus Area B Development Study and Figure 18, Focus Area B Recommended Street Sections).*

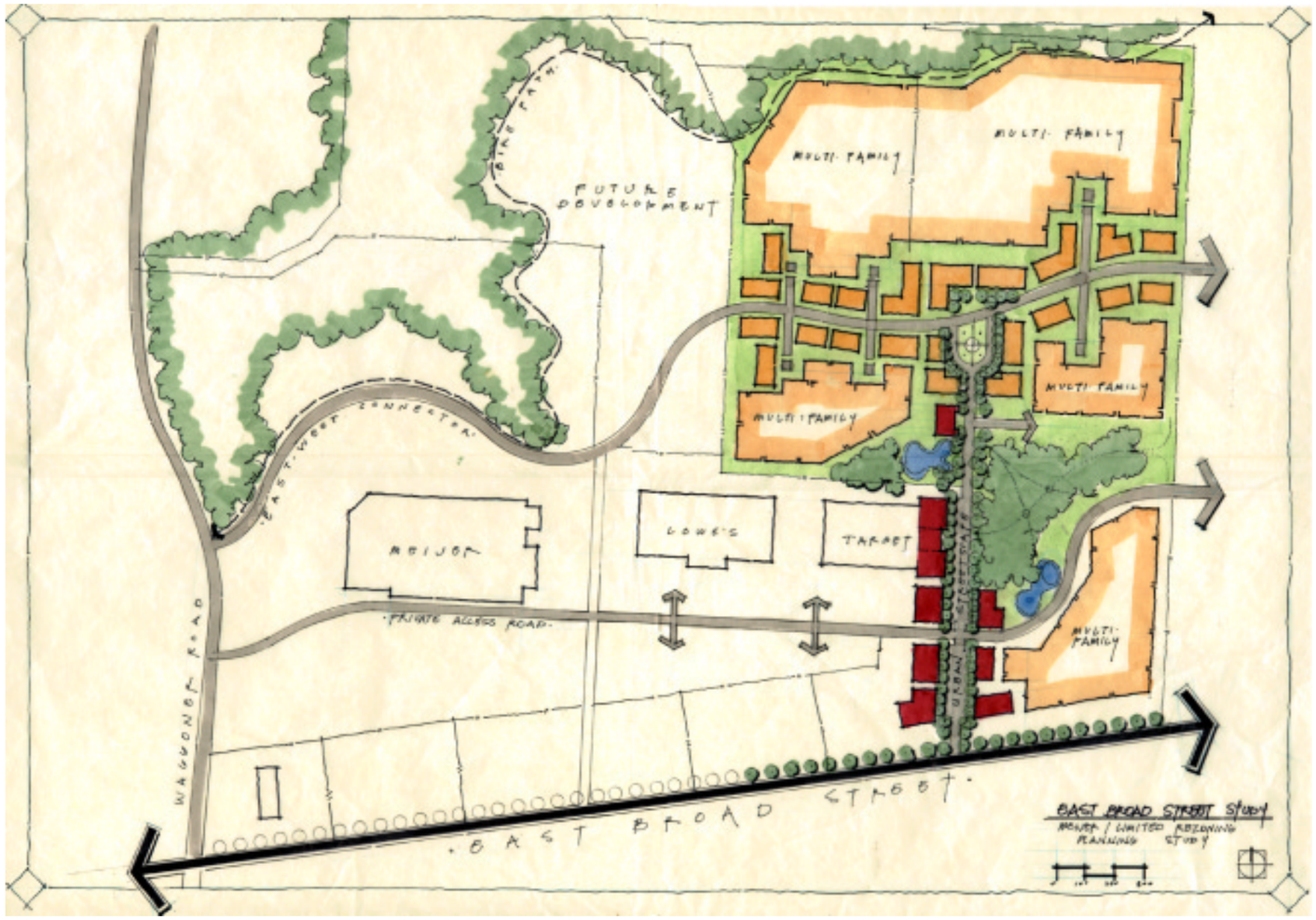
4.1.3 FOCUS AREA C

This 42-acre site is located along Waggoner Road, about 1000 feet north of East Broad Street *(see Figure 19, Focus Area C).* No development is currently underway on this property. This site is currently in Jefferson Township but is mostly surrounded by the city of Columbus. It would be very difficult for Jefferson Township to service this site, and there is little incentive for the Township to do so if it is to develop as residential. As the site is largely surrounded by single family uses, so this potential use seems a reasonable assumption. In looking at this Focus Area, an alternate idea emerged. There is not a good way to develop this site in a traditional neighborhood design manner due to the difficult access issues and adjacency to low-density residential. The design principles of traditional neighborhood development could be applied to encourage clustering of development and a mixture of uses, but an appropriate land use other than single-family development is difficult to justify. The great value of the site is that it continues the natural beauty of Dysart Creek Ravine from the east, and provides a true scenic roadway experience in an area sorely lacking in such places. In addition, the entire site is heavily wooded. These factors, coupled with the absolute lack of recreational amenities in the study area, led the study to the conclusion that this site should be seriously considered for purchase as a public park. The city of Columbus currently has no public park in the area. While this would likely require a large investment, the recreational value to the area would be immeasurable. In addition, this park would serve as the nucleus of the bike/walking trail system contemplated for the area by this plan. Use of funds received as "fees in lieu" of park donation from development projects in the Study Area should be ear marked for purchase of land such as this site.

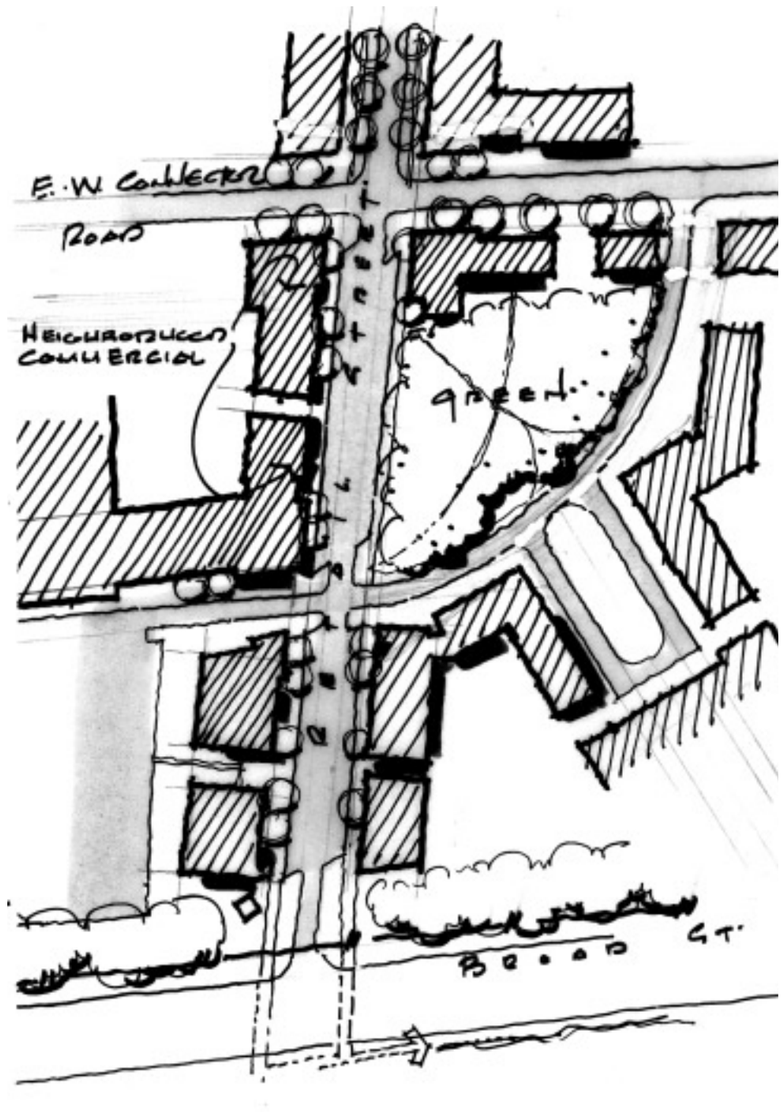
4.1.4 FOCUS AREA D

This 110-acre site is located near the southeast corner of East Broad Street and Reynoldsburg-New Albany Road *(see Figure 20, Focus Area D).* The site is currently in Jefferson Township, but is entirely surrounded by Reynoldsburg and Columbus and is in the Reynoldsburg service agreement area. It is also within the Reynoldsburg school district.

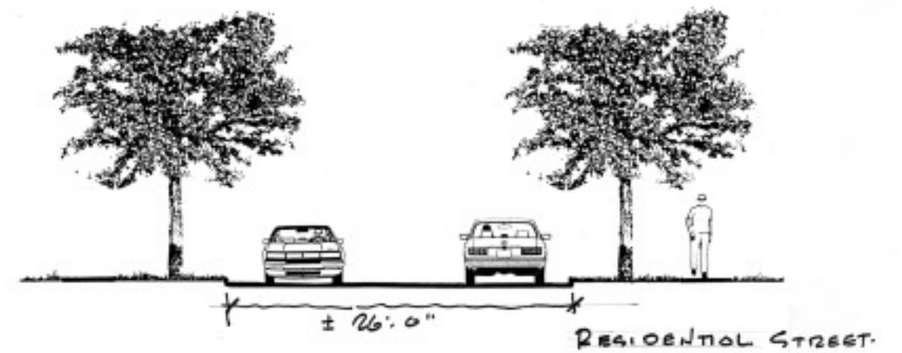
If development is to occur on this site, the first factor in determining the use should be the impact that will occur on East Broad Street and the overall study area. The second consideration should be whether the use can positively impact the existing development surrounding the site.



Site Development Study with Existing Zoning Constraints



Pedestrian Scale Concept for North - South Roadway



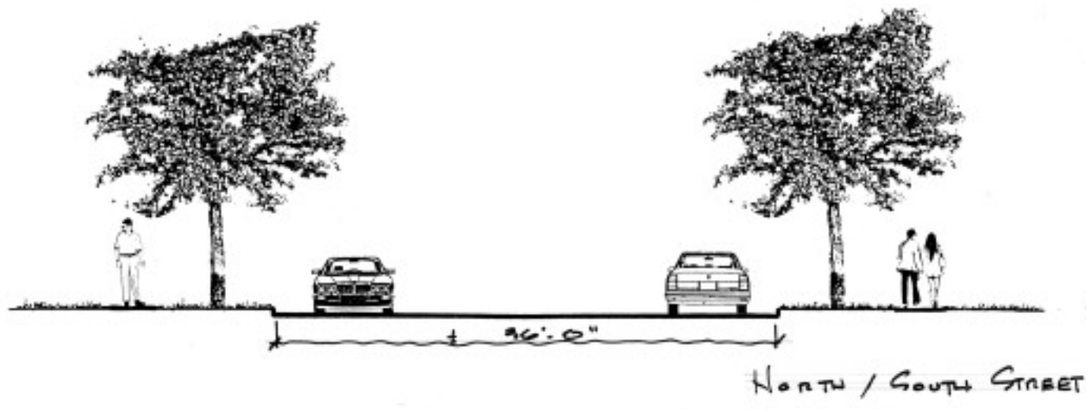
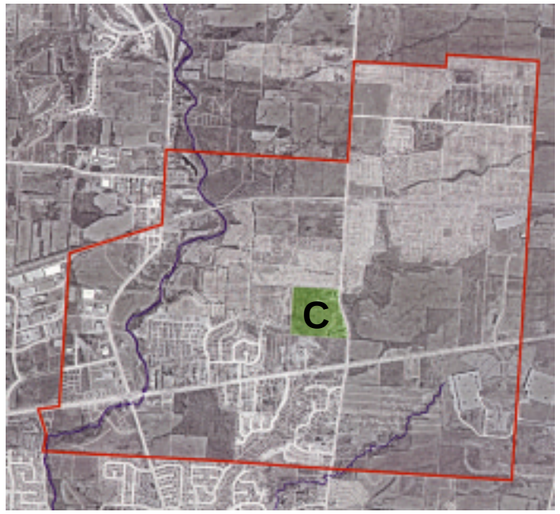


Figure • 18



1” = 400’

Figure • 19

1500 0 1500 N

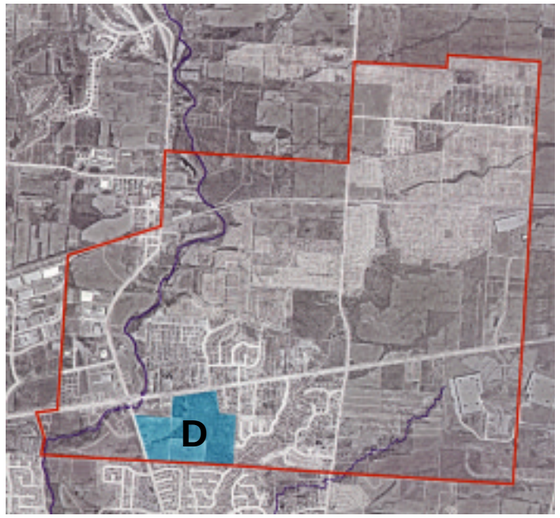


Figure • 20

1500 0 1500 N


Waggoner Rd.
Kennedy Rd.
Reynoldsburg - New Albany Rd.
Wengert Rd.
A
CSX Railroad
Blacklick Creek
C
B
Brice Rd.
East Broad Street
16
D
Lancaster Rd.
400 0 400 Feet

Figure • 21


1500 0 1500
N

The nature of this site with regard to the surrounding environment lends itself rather well to the principles of traditional neighborhood design. The commercial corridor along East Broad Street could support a commercial or civic use while multifamily development could transition into single family on the southern portion of the site. This single family development would nicely mesh with the existing neighborhood that borders the site completing the street pattern that has been started and is currently stubbed into this site. In considering possible land use, it is important to determine uses that are compatible with the existing development bordering the site. This site must also incorporate a true roadway network that includes a secondary east-west route.

Several uses could be considered at the northern portion of this site, along the East Broad Street corridor. Should development occur, office uses would best meet the goals of this study. Due to the heavy amount of retail uses already along the corridor and the need to reverse traffic flows along East Broad Street, office is a preferred use for this site. Most importantly, the land uses must be coordinated to function seamlessly with the existing neighborhoods to the east and south. Intense retail uses will not function well from the standpoint of interconnectivity. These uses would likely burden the neighborhood if the roadway system were interconnected with the existing development. Uses compatible with the notion of interconnectivity are the only ones that should be considered for this site.

This site also includes an extension of the Dysart Creek Ravine and an extensive wooded area. It is important that recreational trail access is maintained through this site and that open space be preserved. Parkland must be provided on this site to adequately service the residents of this development.

The development plan illustrates general development areas with appropriate land uses, but development standards will also be needed to ensure that this site meets the goals of this study *(see figure 20, Development Plan - Focus Area D).* The following are the major issues for development of this focus area:

- Large-scale retail development exacerbates some of the problems on East Broad. If development is to occur, office development - including public parkland – is preferred adjacent to East Broad Street. Some multifamily is also appropriate in the area with single family development as needed to extend existing neighborhood areas.
- Land uses must be compatible with neighboring areas. There is existing single family development adjacent to this site that should be particularly considered.
- If developed, this site should interconnect to the existing roadway network to the south and east. Existing roadway stubs are in place that must be connected to complete the roadway network in this area. These connections are critical to help alleviate pressure on an increasingly congested East Broad Street.
- Subareas should follow the intent of the Traditional Neighborhood Design code currently under development by the City of Columbus.
- Buildings should be sited adjacent to a prescribed setback on East Broad Street with parking located to the rear of the structures.
- Parking should be located internally to the site for commercial / public / institutional uses. In particular, parking should not be adjacent to primary roadways, but should be located to the rear and sides of buildings.
- An interconnected grid of multiple new streets within this development and between this development and adjacent areas must be created.
- No residential, institutional, or commercial structures can back onto public rights-of-way or public parks.
- Densities should be highest closest to East Broad Street. The uses should transition from the commercial portion of the site to multifamily residential and then into single-family residential.
- Usable public open space must be provided on the site within 1200’ of all dwelling units.
- Parkland should be used as an orienting device for the development.
- This area must be integrated into the overall parkland and recreation trail plan that utilizes ravines and trail connections in developing a usable park system for the area.

Land Use and Development

4.2 REDEVELOPMENT OF RURAL RESIDENTIAL PARCELS ON EAST BROAD STREET

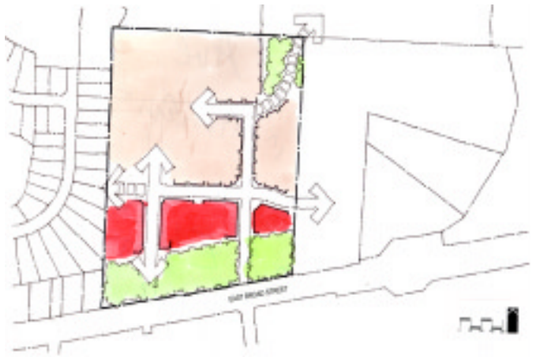
The primary redevelopment sites in this area will be the existing rural residential sites that are converted to other uses. There are a number of these such lots located along the East Broad Street corridor *(see Figure 22, Potential Redevelopment Sites).* These sites are primarily narrow and deep, presenting challenges for quality development. One solution is for several sites to be combined as a single development parcel. This will not happen in many cases, however, a strategy to deal with incremental development of these parcels is illustrated.

The most important factor in redevelopment of these sites is to develop interconnectivity between these lots so that curb cuts are not created on each one. Particularly with the narrow street frontage, the number of curb cuts would quickly become problematic, exacerbating an already bad situation along East Broad Street. Instead, cross access routes should be developed across the properties somewhere from the middle to the rear of the parcel depth. This will enable structures to exist at the front of the site, screening the parking and fronting on East Broad Street. In addition, another structure could be located at the rear of the parcel should the depth be great enough, provided that the use did not need high visibility on East Broad for survival. Several lots could then be accessed from a common driveway that would service several businesses. Since it will often be the case that separate parcels are developed at different times, it is possible to phase this type of development. If cross-access easements are established for each project and curb cuts are minimized, a cohesive whole will begin to emerge with each new project.

The figures at the right represent the potential redevelopment pattern that a group of these rural residential parcels might take that would meet the standards described in this study. During the course of this study, development has begun on several of the parcels illustrated here, however the others should be encouraged to interconnect with the current projects. In addition, this general strategy can be employed for the other groups of rural residential parcels located along East Broad Street.

a. Before redevelopment

b. First phase redevelopment



c. Redevelopment build-out

Figure 23, Rural Residential Redevelopment Study

EAST BROAD STREET STUDY

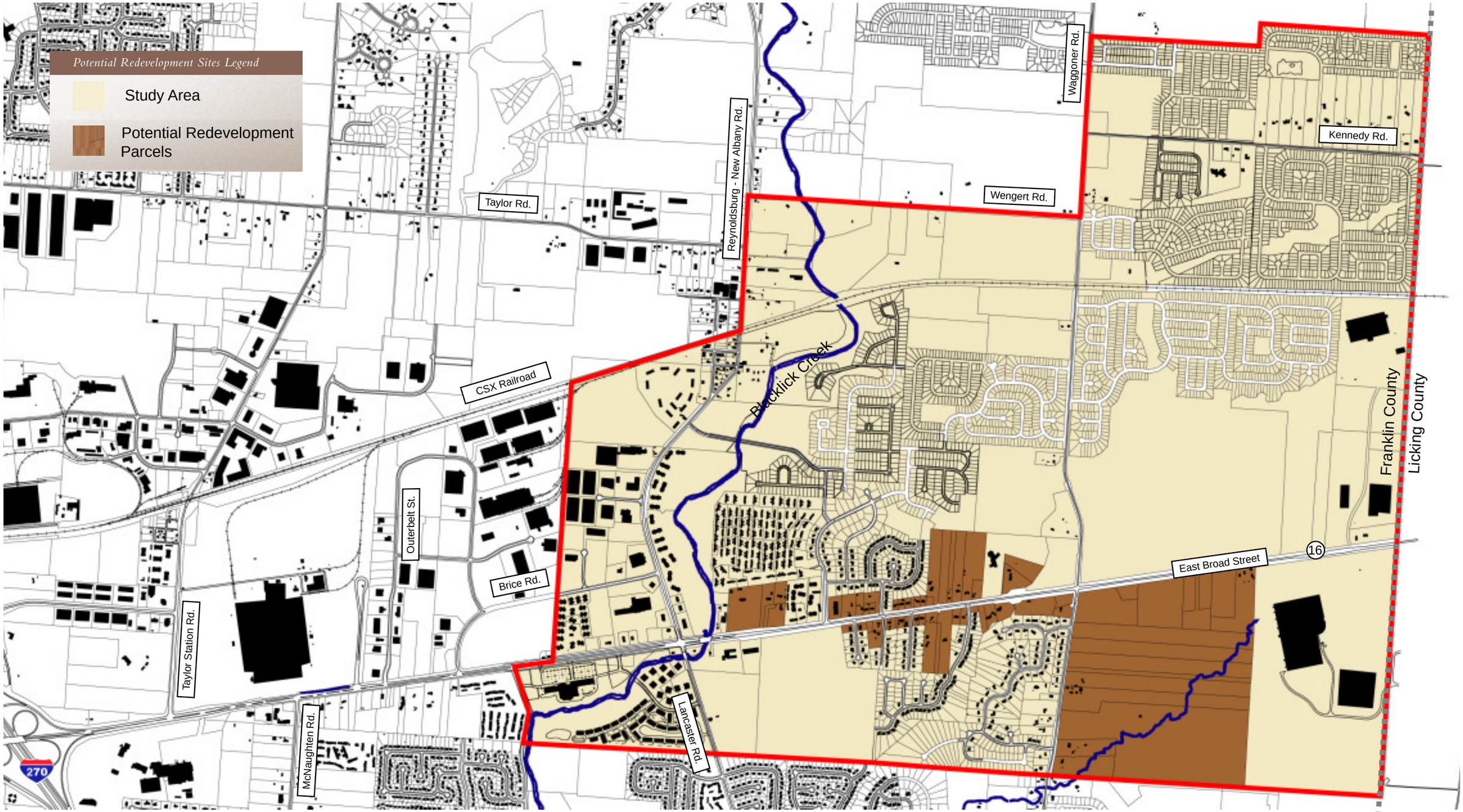


Figure • 22

1500 0 1500 N

V. Parks and Paths

Existing Natural Features and Park Space

Surprisingly, this area has more relief and topography than much of the rest of Franklin County. At this end of the county, the elevation begins to rise toward the foothills farther to the east. In fact, there are several points on East Broad Street with vistas of downtown Columbus lying in the distance to the west. As one travels along East Broad, the Blacklick Creek and its tributary, Dysart Creek, cut impressive ravines northeast to southwest through the study area. One-hundred year floodplains have been identified along the Blacklick Creek, but other than these areas and some significant slopes along the ravines, the area is suitable for development. Most of the area has been farmed, but noteworthy stands of trees remain - particularly along the ravines and in Focus Areas "C" and "D" *(see Figure 24, Natural Features)*.

To date, only a few small pocket parks exist in the developed portions of the study area. Of this handful, most are the size of mini-greens surrounded by single-family lots or are used for stormwater detention. The remainder of the open space within platted developments has been provided along ravines where the lots could not easily be created because of the steep slopes. There are no nature paths or bikeways linking these pocket parks or taking advantage of the beautifully wooded ravines. These are missed opportunities that could be wonderful amenities for the entire community. The ravines and tree stands should be incorporated into a master park plan and the City should be reserving and purchasing these significant land areas with the fees developers have been paying in lieu of dedicating parkland.

Significance of Parks and Paths

When people think of the quality of their lives and the positive attributes of where they live, one of the most important aspects is green space and access to recreational opportunities. Often parks can make the difference between an acceptable neighborhood and a great one. In fact, parks are an essential component of any successful community and a court-approved key ingredient of government's police power responsibility for guaranteeing their citizens' "health, safety, and general welfare." Unfortunately, dedicated parkland is almost completely lacking in the East Broad Street study area, and what little is available is far below acceptable standards for the amount of residential development that exists and is planned. Some open space does exist and is located primarily in Jefferson Township and along the Dysart Creek ravine in Columbus and Reynoldsburg. However a portion of this is privately owned and the remainder is completely unprogrammed, lacking formal trails or paths for the public.

This study shows 17 acres of park, or 0.7% of the developed area. An additional 2.2% (53 acres) is open space. With a current population greater than 11,000 people, there should be a minimum of 80 acres of parkland to meet the average park acreage per person in major U.S. cities. By developing a trail system along the existing ravine open space areas, the available parkland becomes more in balance for the area. Still, with the expected continued growth, acquisition of a large contiguous area, such as the 60+ acres in Focus Area C, will greatly help meet the park and recreational needs of these neighborhoods. If newer developments follow the traditional neighborhood design, they will also provide additional parks space as parks are vital to the success of TND type development. Traditional design focuses on open space and public parkland as an orienting device and locates parkland within a short walking distance of every residence.

Additional park amenities must be created and connected throughout the area. Of the limited amount of formal park areas that exist near East Broad Street, none are large and there are no suitable connections between them. Bikeways and recreational path systems must be developed that link public parkland through open space corridors. The ravine system in the area

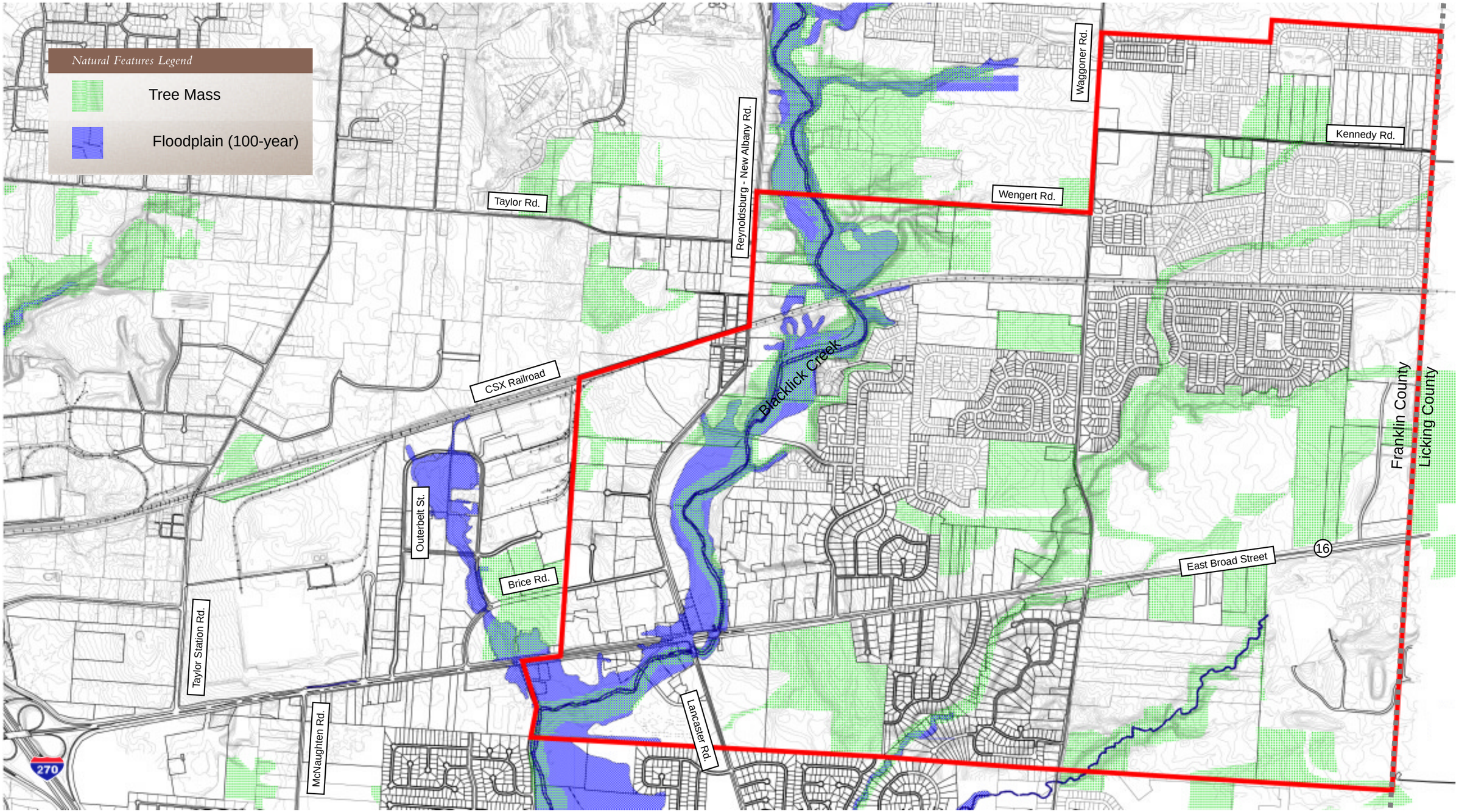


Figure • 24

1500 0 1500 N

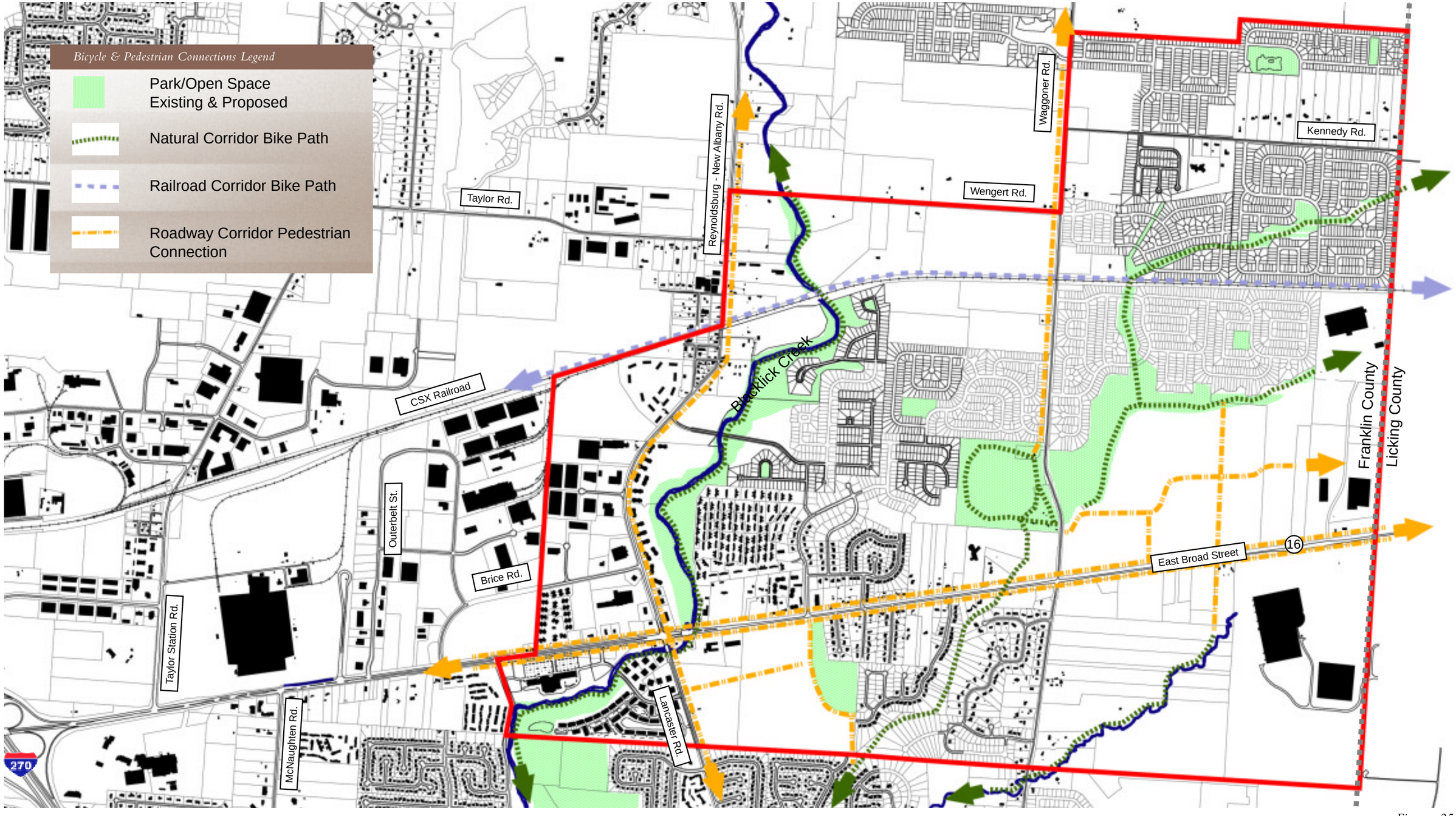

Bicycle & Pedestrian Connections Legend
Park/Open Space Existing & Proposed
Natural Corridor Bike Path
Railroad Corridor Bike Path
Roadway Corridor Pedestrian Connection
Taylor Rd.
Reynoldsburg - New Albany Rd.
Waggoner Rd.
Wengert Rd.
Kennedy Rd.
CSX Railroad
Blacklick Creek
Franklin County
Licking County
Outerbelt St.
Brice Rd.
East Broad Street
16
Taylor Station Rd.
McNaughten Rd.
Lancaster Rd.
270
1500
0
1500
N

Figure • 25

should be exploited for this connectivity. An increasingly popular notion for providing both recreation and visually pleasing environments throughout neighborhoods is the use of linear greenbelts and recreational path loops. Utilizing the natural beauty and interesting topography of the ravines throughout the area make perfect sense for implementing this ideal throughout the East Broad Street area. This study recommends the purchase and/or dedication of certain parcels, easements, and ravine lengths for parkland and natural recreation corridors. This includes areas in and around Focus Areas "C" and "D" *(see Figure 25, Recommended Pedestrian and Bicycle Connections).* The railroad track right-of-way also lends itself to a linear trail and should be studied further. Note that none of the paths shown in Figure 25 currently exist.

MORPC has created a proposed regional bikeway system. Several of the proposed routes are within the study area, including one along the Blacklick Creek and others along Reynoldsburg-New Albany Road and East Broad Street itself. These proposed bikeways match with those recommended by this plan. It is worth noting that transportation funds are available for the development of bike paths along road corridors and construction of a path as part of the widening, and redevelopment of East Broad Street would be a worthwhile project for such funding. Finally, Licking County has a very extensive bike path system that is dramatically increasing in size thanks to the support of the T.J. Evans Foundation. Effort should be made to coordinate bike path development so that these two systems can one day interconnect, allowing for long and enjoyable journeys through our communities.

VI. Transit Issues

Understanding the impact of ever-increasing traffic on the East Broad Street corridor and its finite capacity, it is vital that alternative transportation methods be explored. This plan contemplates the possibilities for expanded and successful utilization of mass transit to improve transportation throughout this area and to lessen the burden on East Broad Street. Due to several factors, the East Broad Street corridor is an ideal location to implement alternative transportation options.

• First, Broad Street is an existing roadway with limited improvement options for automobile use and a large anticipated future volume.

• Second, there are a number of large employment centers on East Broad Street with a wide range of job opportunities and clients, some of whom rely on public transportation. In particular, Mount Carmel East, the regional hospital serving the east side of Columbus, requires an enormous workforce at a variety of pay rates while serving patients from all around the area. Those working and visiting the hospital are greatly served by access to alternative transportation options. In addition, there are several large corporate employers located along East Broad Street including divisions of The Limited and Lucent Technologies. The concentration of employees makes mass transit more feasible.

• The third factor influencing the viability of transit options in this area is the geographic importance of East Broad Street as a commuter and transportation corridor. With limited east/west routes in the region, East Broad carries a great portion of the traffic commuting between the far eastern suburbs and destinations within the outerbelt. With rapid development occurring throughout Licking County, additional traffic is being generated from the east. Many commuters use this segment of East Broad Street to gain access to the I-270 loop that carries intense commuter traffic every workday. In addition to providing access to I-270 and downtown, East Broad Street comes within close proximity of the Columbus Metropolitan Airport. Also, establishing commuter rail in this area would justify COTA establishing a small circulator system for the area.

• Finally, a fourth factor is the joint CSX/Ohio railroad line that runs through the north end of the study area. The COTA Vision 2020 Plan ranks this line as one of four priority commuter rail lines to be developed should funding be made available. Because the state has an ownership stake in this rail line, this route has been identified as a primary candidate for a demonstration commuter rail line. Installation of a demonstration line would involve running a limited number of trains along the existing system under test circumstances to determine the feasibility of a larger system throughout the area.

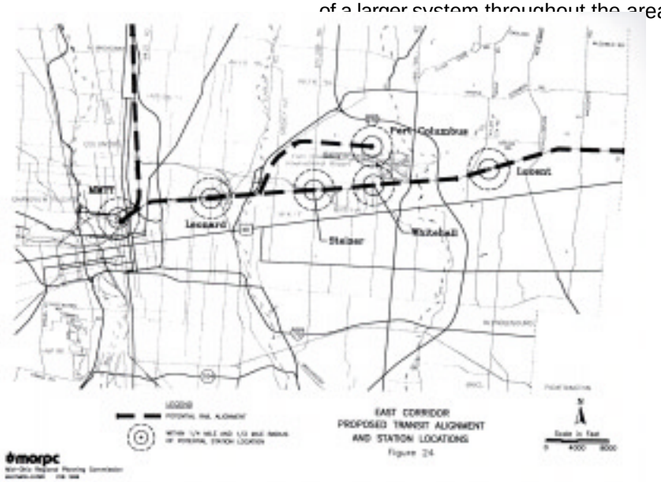


Figure 26, MORPC Proposed Transit Alignment

6.1 THE CASE FOR TRANSIT OPTIONS

Based on COTA's alternative analysis report, mass transit imporves mobility and access to jobs, provides alternatives to traffic congestion, attracts economic development, supports a shared vision, attracts smart growth, preserves traditional neighborhoods, and enhances community character and livability. There is a clear demand for public transportation services and alternative transit options throughout the East Broad Street study area. This demand will only increase as development continues, placing thousands of additional housing units and hundreds of thousands of square feet of additional retail and office space in the area. This study found that it is important to determine employment and trip generation, evidencing support for development of a commuter line and the expansion or extension of the existing COTA bus service.

Table VII shows the current and projected impact of the employment and service base within the East Broad Street Study Area. In projecting the traffic impact that development will have on East Broad Street, it is necessary to estimate the number of vehicle trips that occur, particularly during peak (rush) hours. One way of determining vehicle trips is to calculate the number of employees that work in an area. Employees make at least two trips per day (one to work and one from work), and often more when factoring in lunch or errands. It is important to note that the estimate changes when considering the customers (or in the case of a hospital - patients) who also contribute vehicle trips to the roadway system. These trips are usually assumed to be two trips per day, but can be difficult to determine a daily average of clients for a business, particularly in a large study area. As indicated by the below table, the estimated impact of the existing businesses on East Broad Street will be significant.

Residential development also generates a large amount of trips. Household surveys conducted in this area by the Mid-Ohio Regional Planning Commission (MORPC) and the Licking County Area Transportation Study (LCATS) indicate an average of just over nine (9) vehicle trips per day for single family units and seven (7) vehicle trips per day for multifamily units. The Residential Traffic Impact table (Table VI) estimates the traffic impact of the residential development currently built or under construction within the study area.

Table VI: Residential Traffic Impact

Housing Type	*Number of Units*	*Average Trips per Day*	*Vehicle Trips per Day*
Single Family	3,548	9 per unit	31,932
Multi-Family	2,777	7 per unit	19,439
Total	**6,325**		**51,371**

Table VII: Employment Traffic Impact

Employer	*Employees*	*Patients/Visitors*	*Peak*	*Parking Spaces*
Mount Carmel East Hospital	2,381	370	1,600	2,207
The Limited	2,300	250	250	3,500
Lucent Technologies	5,500	50	3,600	4,500
Miscellaneous Retail*	1,120	0	370	2,290
Miscellaneous Office/Commercial	270	0	270	320
Miscellaneous/Industrial	3,700	0	1,665	2,900
Total	**15,271**	**670**	**7,755**	**15,717**

*Includes approved Meijers store

In the case of East Broad Street, the most important traffic factor is the amount of through traffic, called "background traffic." This is quite substantial because East Broad Street is a major arterial that links communities and employment centers. The best way to estimate this is from U.S. Census data and traffic surveys. This information, together with the above data, can then be verified with actual traffic counts. For this study, traffic counts from previous years were provided by the city of Columbus and MORPC. With all of this data, future growth impacts on traffic can be predicted. The estimates of future impacts on East Broad Street are significant and cannot be ignored. *(see Appendix B, East Broad Street Access Management Plan)*

6.2 BUS ROUTES

COTA currently has several bus routes that service portions of the East Broad Street corridor east of I-270. Route 44 comes as far east as the corner of East Broad Street and Reynoldsburg-New Albany Road and Route 10 services Mt. Carmel East Hospital from the west. Another nearby bus route is an express line serving commuters from Licking County to downtown. Licking County Transit Board this line which runs along Interstate 70. The Route 22 Eastpointe Local line also serves the Eastpointe shopping area along East Broad Street.

Currently there are no routes that directly service the study area. There is a likelihood that continued development in the area will result in additional demand which could justify a circulator system to service the local employers.

COTA Route 44

COTA Route 10

Figure 27, COTA Bus Routes

I. Recommendations

The specific recommendations of this plan are intended to address the major challenges facing the East Broad Street corridor and the study area described herein. These recommendations are all very important for the long-term vitality of the area. They should not, however, be taken as an all-or-nothing proposition. The following are not presented in a particular order for implementation or importance, but to follow the earlier sequence established in this planning report:

Recommendations for Improving Roadway Network

1. <u>Revise Thoroughfare Plans</u>. Columbus, Reynoldsburg, and Jefferson Township should revise their Thoroughfare Plans to require 160 feet of right-of-way for the length of Broad Street from I-270 to the county line. Thus, redevelopment of a parcel on East Broad Street would necessitate the dedication of any non-public land 80 feet from the centerline of East Broad Street. This would require less than an additional 20 feet in most cases.

Level of difficulty: If the individual municipalities agree with this recommendation, it should be relatively easy to implement. The change in the Thoroughfare Plans would not effect any current roadway development, but would merely assure adequate right-of-way dedication for future development and redevelopment.

Level of importance: High - this will be of great value in future widening efforts and not because of the need but also to ensure new buildings are setback far enough for the future road width. This recommendation should be considered for immediate implementation.

2. <u>Widen Broad Street to six lanes – with a landscaped median and integrated bike facilities</u>. Where East Broad Street is not currently a six-lane road, it should be widened. A landscaped median should be added the entire length to improve the safety, function, and environment of the roadway. The median will limit left turns to signalized intersections and vastly improve the safety and flow of Broad Street. For example, all unsignalized curb cuts will become right-in, right-out. Grade separated bike and pedestrian paths should be constructed along the entire length of East Broad Street. This will provide alternative transportation connections for local trips, make the road safer, and provide recreational opportunities. In sections where additional right-of-way is needed to accomplish this, it should be acquired.

Level of difficulty: The widening of East Broad Street will require significant funding and, as such, will be difficult to accomplish. Additional right-of-way will be required as well as all of the design and construction costs associated with a major roadway improvement. Traffic management during construction will also be a challenge due to the intensity of usage already in place on the roadway. This corridor has already been identified for widening, indicating that a certain level of funding will be designated for this improvement. What should not be overlooked is that this roadway widening must include a landscaped median, which is the key to increasing the safety, function and appearance of the East Broad Street corridor. Without the median, this becomes yet another futile effort to build out of trouble by continually widening the roadway systems. It is important to remember that the capacity of I-270 and its East Broad Street interchange limits the functionality of the entire corridor. We must improve the function and appearance of the roadway in any widening program in order to guarantee the effort is worthwhile -- additional lanes alone will not be enough. The problem, of course, is the increased cost of including a landscaped median in this project as well as the cost of ongoing maintenance of the median. It might be necessary to elicit financial support in the form of an ongoing commitment from major businesses along East Broad Street to support maintenance efforts.

Level of importance: High - this will be a long and difficult process, requiring a great deal of commitment from a financial standpoint. As such, the planning should be undertaken as soon as possible. While the level of difficulty will preclude a quick solution, increased traffic from outside the county, coupled with the continuing development in the area will quickly necessitate improvements to this corridor.

3. <u>Develop additional East-West Connections</u>. Additional east-west road connections are critical. Both north and south of East Broad Street, these connections will become increasingly important as traffic volumes increase. The best opportunity to establish these roadway connections is during the development of the remaining large sites in the study area. Negotiations with the developers of Waggoner Park (Focus Area B) resulted in securing an east-west collector road through the site. This road will serve as a good alternative for east-west traffic flow in this area. At first it will assist in getting local trips off East Broad Street. In order to function best, however, this road should eventually be connected east to Taylor Road and beyond. This is the incremental strategy that must be patiently followed across time. When it is accomplished, there will be a true duplicate network of east-west connections that is currently lacking in the area. In order to make this happen, it will require cooperation between Pataskala, Licking County, Jefferson Township, Reynoldsburg, Columbus, and existing landowners. For example a similar east-west roadway connection will be needed through focus area D, should this area develop. Other opportunities for connections have been identified earlier in Section 3 of this study. One remaining issue with regard to these connections is straightening Kennedy Road at the county line and eventually extending it further west. Right-of-way has been dedicated in both Franklin and Licking Counties to straighten the "S"-curve in Kennedy Road that exists at the county line. Eliminating the right angles and working to find a connection through to Reynoldburg-New Albany Road will become a priority as Pataskala develops. Creating this northern corridor is important to mitigating the future impacts to Broad Street from the east. If Pataskala does not follow Jefferson Township's lead in managed growth, the shear amount of future development there will overwhelm the township's road system as well, and this additional east-west corridor will be more needed. Such a road could even be designed as a limited access parkway bordered by trees. Ultimately, the creation of a few more east-west roadways will alleviate some of the East Broad Street pressure.

Level of difficulty: Moderate to High - In order to accomplish additional east-west connections, cooperation must be established between developers and municipalities to ensure that adequate roadway networks are established throughout the larger development parcels. To extend these roadways through developed areas, a continuing effort will be required to push this requirement as parcels redevelop in the area. In some cases, municipalities may have to take an active role to complete portions of roadway that otherwise would remain unconnected.

Level of importance: High – establishing east-west roadway connections will become increasingly important as the East Broad Street area continues to experience the impacts of development in the region.

Recommendations for Development / Land Use

4. <u>Implement Traditional Neighborhood Development code and Transit Oriented Development code standards for future development in the study area</u>. One of the most significant problems in the East Broad Street Study Area is the lack of cohesive design that will enable long-term sustainability. The existing development pattern has a complete lack of interconnectivity and is designed so that vehicle trips are maximized. Pedestrian access is almost nonexistent, uses are segregated, there is no vehicular connectivity, large

parking fields dominate the streetscape, and there are few public recreational amenities in the area. For the long-term success of the study area it is vital that the philosophy of development change. The TND principles of interconnectivity, a mix of uses, pedestrian scale streetscapes, and parkland in close proximity to residences must be implemented to improve the development pattern and livability of the area.

Level of difficulty: Moderate to High – Due to the lack of land available for development, opportunities to implement these standards along the existing corridor will be limited. There is great potential, however, to incorporate these standards for sites still developing or redeveloping throughout the study area.

Level of importance: High – The function and appearance of the East Broad Street study area will not be improved without applying good planning principles.

5. <u>Encourage office and park development along East Broad Street – limit further retail development along East Broad Street</u>. The remaining large undeveloped lots along East Broad Street should be developed in ways that produce low vehicle trip generation uses during peak hours. Overall, low trip generators are encouraged (parks or large lot single family) or opposite flow/off peak trip generators (office, institutional care, churches). Offices will attract employees that will drive from I-270 in the morning and back in the evening – opposite to the large traffic volumes. Churches usually draw vehicle trips during off-peak times such as evenings or Sundays. Retail uses that are developed should be neighborhood-oriented to serve the population that already exists in the area. Uses that encourage destination trips into the area will only exacerbate the traffic situation on East Broad Street. Whatever resulting mixture of land uses, the overall impacts on the East Broad Street corridor must be considered.

Level of difficulty: Moderate – While developments may be proposed that include other uses, it is important that each municipality determine whether the proposals meet the standards for the long-term success of the area. The most important considerations in application review must be the way new development impacts the existing uses in the area and how well these uses can conform to the development standards of the TND code and/or any standards approved for development along East Broad Street.

Level of importance: Moderate – Land use is an important consideration throughout the area. However, the most important aspect of development is meeting the quality planning practices outlined in this study including interconnectivity, pedestrian scale streetscapes, and quality parkland development.

6. <u>Develop open space/parkland amenities in the East Broad Street area including an interconnected bike/walking trail network</u>. Parks and open space are the most important amenity that can be created in this rapidly developing area. This study area is virtually devoid of parks. Neighboring sites in Jefferson Township and Reynoldsburg contain parkland, but not enough to sustain the ever-increasing population of this area. More than a thousand additional housing units will soon be constructed, adding to the thousands that already exist, and the residents here will need opportunities for passive and active recreation.

Level of difficulty: Moderate to high – Three separate strategies are needed to accomplish this goal. The first is to require that new development include parkland and greenspace that accommodates a trail network and access to natural features. In the past, developers have shown a willingness to provide these amenities if they can be integrated with the desired development plan. The second strategy is to acquire municipal parkland in the area of significant enough size to serve the growing residential population of the area. Some substantial

capital outlay will be required for the purchase of parkland in the area. Ideally the site will be rich in natural features as well as being in proximity to the residents of the area. Finally great effort should be made to connect the beautiful natural ravines with paths and trails for the public. Several areas already belong to the city, and easements and rights-of-way should be negotiated in others to create an interconnected system. This has the potential to be a legacy for generations to come.

Level of importance: High – This study area currently has under 3% of the developed and committed land as public park and open space. This deficiency will become more apparent as the vacant parcels that are currently open continue to develop. Creating additional parkland is vital if this is to be a livable neighborhood in the future.

7. <u>Create Design Standards for East Broad Street</u>. As East Broad Street redevelops, design and landscape standards should be in place to create a more uniform and aesthetically appealing appearance. Landscaping, setbacks, signage, lighting, screening, building, and parking placement standards should be developed. General design standards have been outlined in this plan, but specific design determinations should be developed through a collaborative community process. Specific site plan standards regarding issues such as the siting of buildings and parking areas should be determined. Details such as sidewalk widths and materials, street lighting types, and preferred street trees should also be selected. These standards should then be incorporated into an overlay for the East Broad Street corridor. This overlay will then steer upcoming development efforts and future redevelopment projects in the area. The level of detail of these standards will be established through the public process, but should include standards that will encourage and require improvements in the appearance and function of the corridor.

Level of difficulty: Moderate – A public process would be needed to gather input from the community and develop the specific standards for the corridor. The general standards should be those found in the TND code and enumerated in section 3.6 of this study.

Level of importance: High – The only way to improve the long-term function and appearance of the corridor is to develop appropriate design standards and implement them on all new development as it occurs.

8. <u>Adopt Policy and Code Requirements for East Broad Street Rural Lots</u>. Standards are needed for the remaining large rural lots that will redevelop along East Broad Street. The land economics are such that rural residential uses will be difficult to justify across time. These lots should be allowed temporary right-in/right-out access to Broad Street until permanent access via internal roads or drives can be developed to serve all the lots in each area. Parking should be required to the rear of the new buildings and east-west connections should be built in conjunction with the parking lots, parallel to East Broad but toward the rear of the lots, to convey traffic between adjoining lots. These connections must include cross-access easements to allow secondary east-west vehicular connections to form and eliminate the need for additional curb cuts.

Level of difficulty: Moderate – This concept is basically an extension of the creation of design standards for East Broad Street. The rural, mostly residential, lots are likely to redevelop and should allow for application of TND design standards if developed correctly.

Level of importance: High – This is one of the best opportunities to start creating a better standard of development along East Broad Street. The quality redevelopment of each individual lot will have a significant aggregate impact as larger groups of these sites are completed.

capital outlay will be required for the purchase of parkland in the area. Ideally the site will be rich in natural features as well as being in proximity to the residents of the area. Finally great effort should be made to connect the beautiful natural ravines with paths and trails for the public. Several areas already belong to the city, and easements and rights-of-way should be negotiated in others to create an interconnected system. This has the potential to be a legacy for generations to come.

Level of importance: High – This study area currently has under 3% of the developed and committed land as public park and open space. This deficiency will become more apparent as the vacant parcels that are currently open continue to develop. Creating additional parkland is vital if this is to be a livable neighborhood in the future.

7. Create Design Standards for East Broad Street. As East Broad Street redevelops, design and landscape standards should be in place to create a more uniform and aesthetically appealing appearance. Landscaping, setbacks, signage, lighting, screening, building, and parking placement standards should be developed. General design standards have been outlined in this plan, but specific design determinations should be developed through a collaborative community process. Specific site plan standards regarding issues such as the siting of buildings and parking areas should be determined. Details such as sidewalk widths and materials, street lighting types, and preferred street trees should also be selected. These standards should then be incorporated into an overlay for the East Broad Street corridor. This overlay will then steer upcoming development efforts and future redevelopment projects in the area. The level of detail of these standards will be established through the public process, but should include standards that will encourage and require improvements in the appearance and function of the corridor.

Level of difficulty: Moderate – A public process would be needed to gather input from the community and develop the specific standards for the corridor. The general standards should be those found in the TND code and enumerated in section 3.6 of this study.

Level of importance: High – The only way to improve the long-term function and appearance of the corridor is to develop appropriate design standards and implement them on all new development as it occurs.

8. Adopt Policy and Code Requirements for East Broad Street Rural Lots. Standards are needed for the remaining large rural lots that will redevelop along East Broad Street. The land economics are such that rural residential uses will be difficult to justify across time. These lots should be allowed temporary right-in/right-out access to Broad Street until permanent access via internal roads or drives can be developed to serve all the lots in each area. Parking should be required to the rear of the new buildings and east-west connections should be built in conjunction with the parking lots, parallel to East Broad but toward the rear of the lots, to convey traffic between adjoining lots. These connections must include cross-access easements to allow secondary east-west vehicular connections to form and eliminate the need for additional curb cuts.

Level of difficulty: Moderate – This concept is basically an extension of the creation of design standards for East Broad Street. The rural, mostly residential, lots are likely to redevelop and should allow for application of TND design standards if developed correctly.

Level of importance: High – This is one of the best opportunities to start creating a better standard of development along East Broad Street. The quality redevelopment of each individual lot will have a significant aggregate impact as larger groups of these sites are completed.

RECOMMENDATIONS FOR MASS TRANSIT

9. Encourage siting and developing transit stations in the East Broad Street Study Area. Many solutions for improving the traffic situation in this area have been suggested. The fact is, however, that these measures will only serve to somewhat mitigate the traffic impacts of continued development in this area and in bordering Licking County. If this level of development persists long into the future, the only solution will be to develop alternative transportation methods capable of serving many people. Improved mass transit could begin with increased bus service and extended routes, and with success grow to regional commuter bus hubs, and eventually into commuter rail. The important part is to reserve areas for stops and terminals now as the area develops.

Level of difficulty: Moderate to high – Finding areas to locate transit stations can be accommodated for both short and long range transportation needs. The largest obstacle to this goal is the uncertainty of countywide funding for long-range transportation improvements such as commuter rail. This is beyond the scope of this study, but provisions for locating transit stops should be considered, because the probabilities are high that commuter rail will eventually occur in this corridor.

Level of importance: Moderate – Should mass transit initiatives be implemented in central Ohio, having these locations in place will improve the speed with which a system could be developed in this area and will greatly enhance the value of the land surrounding them.

10. Organize an Advocacy Group for Mass Transit. The large employers along Broad Street in Franklin and Licking Counties should form a group to promote the concept of a demonstration rail project on the Broad Street Corridor rail to COTA, MORPC, and state and local officials. It should support and encourage funding for COTA to build and operate commuter rail on this route. This group should also work to improve bus service and routes. It could consist of representatives from Mt. Carmel East Hospital, Lucent Technologies, The Limited, Defense Supply Center Columbus, Port Columbus International Airport, the city of Columbus, Reynoldsburg, Jefferson Township, Bexley, Whitehall, Gahanna, MORPC, COTA, as well as members of any neighborhood group or homeowners' association in the area. The employment numbers provided in this report are a first step toward arguing the primacy of this corridor in a central Ohio commuter rail system.

Level of difficulty: Moderate – Forming and operating such a group would take organizational effort and dedication to the idea, but is certainly possible. Developing a foundation and encouraging a widespread interest in dealing with the long-term challenges of the East Broad Street area is the key.

Level of importance: Moderate – COTA is in the process of updating its commuter rail study. It has placed the CSX/Ohio rail line in the group of four routes slated in the first group to be developed should funding be secured. Though this could be ten or more years away, this advocacy group could help drive this decision making process by showing the value of this project to local employers and indicate the growing support for the concept in this area.

Appendix A

I. Introduction

The portion of East Broad Street from I-270 to Rose Hill Road has been subject to the same development pressures as evidenced throughout the East Broad Street Study Area. As an adjunct to the East Broad Street Study, this appendix has been prepared to specifically comment on the development issues effecting this area (*see figure 1a, existing conditions - additional study area*). This appendix addresses the way that the recommendations of the larger study relate to this particular area.

This portion of East Broad Street is affected by the same issues and needs as the larger area investigated in the accompanying report. In particular, the traffic generated by existing and planned development in the area, as well as the traffic from rapidly developing Licking County, is increasingly taxing the capacity of East Broad Street. In addition, land use considerations here are similar to the larger study area where redevelopment potential for current rural lots exists along East Broad Street.

II. Existing Conditions and Concerns

The following describe the existing conditions of this portion of East Broad Street:

A. LAND USE

Land Use	Acreage		Percent
Residential			
Single-Family	100.6	Acres	10.3%
Multi-Family	13.7	Acres	1.4%
Commercial	40.0	Acres	4.1%
Industrial	632.4	Acres	63.9%
Institutional / Civic	172.5	Acres	17.45%
Agricultural	0.0	Acres	0.0%
Open Space	0.0	Acres	0.0%
Park	0.0	Acres	0.0%
Total	**959.2**		

**total acreage does not include street or rail right-of-ways*

B. CORPORATE BOUNDARIES

Municipal Jurisdiction	Acres in Study Area
City of Columbus	947
Jefferson Township	7
City of Reynoldsburg	3
Truro Township	28
City of Gahanna	24
Total	**1,006**

C. SCHOOL DISTRICTS

School Districts	Acres in Study Area
Columbus	454
Gahanna Jefferson	475
Reynoldsburg	78
Total	**1,006**

III. Streets and Traffic

East Broad Street is the most significant component of this area's roadway network. The impact of traffic congestion on East Broad Street is even more significant in this area due to the proximity of the I-270 interchange to this location. At peak hours, traffic headed to the interchange can backup past Mount Carmel East Hospital and the Lucent Technology campus to this areas. Here, the recommendations to widen the roadway and install a median are of paramount importance, as improved roadway capacity will be needed to handle the traffic from new developments to the east. This plan proposes adding one lane in each direction to East Broad Street from McNaughten Road west to Waggoner Road. The result will extend the six-lane portion of Broad Street eastward beyond the existing segment between the interchange

Existing Conditions - Additional Study Area

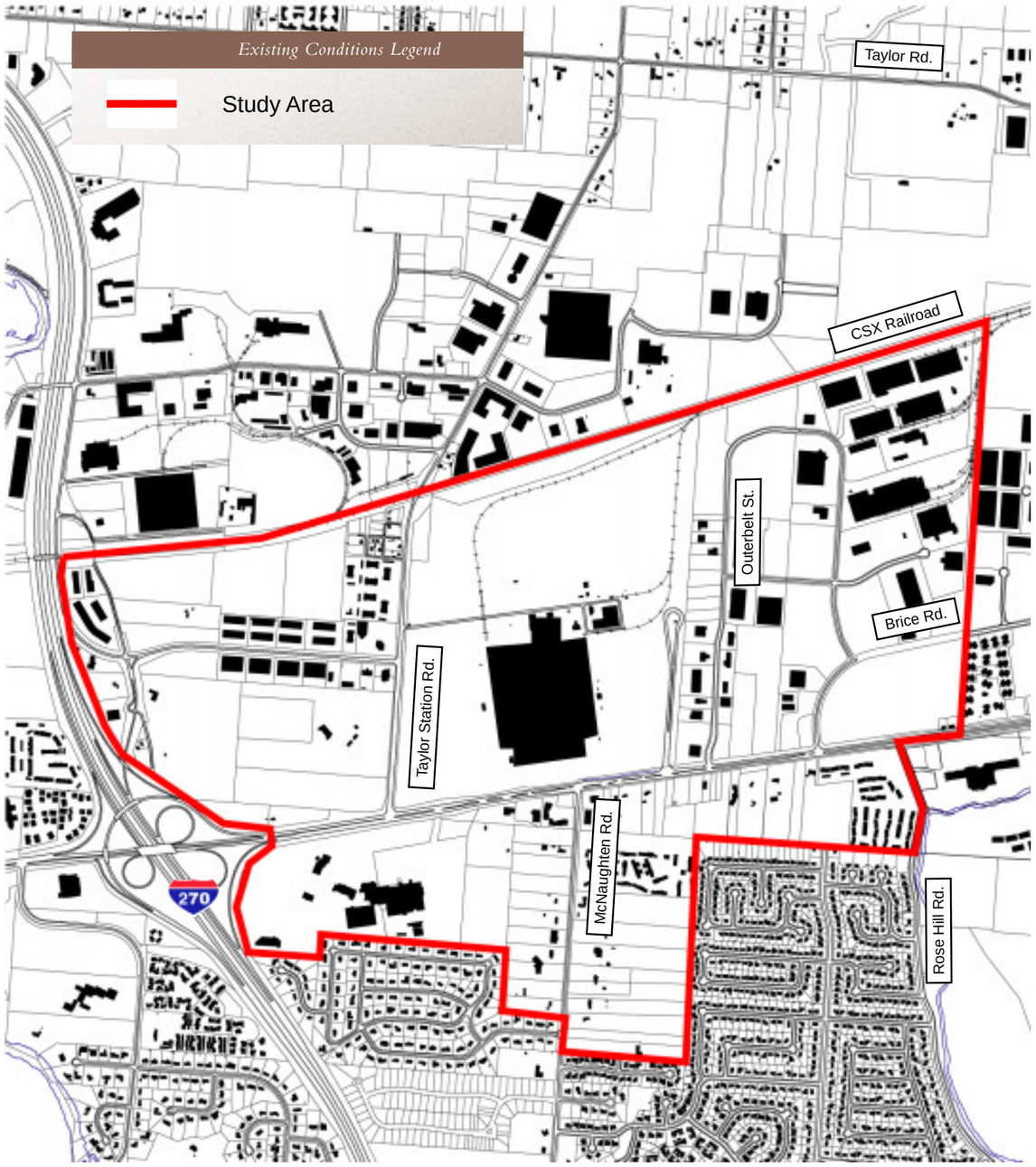


Figure • 1a

and McNaughten Road. Widening will also help reduce the constraints on the McNaughten intersection identified in the traffic study. Additional recommendations include adding a traffic signal to the intersection of Brice Road and East Broad Street after the widening (providing signalized access for companies on Outerbelt Street). As previously mentioned, the addition of a median to Broad Street and implementing other access management strategies included in this report will be vital in improving the overall roadway function and capacity.

The other major recommendation regarding the roadway network is the development of additional east-west connectors to help ease the traffic burden on East Broad Street. This will prove more difficult to achieve in this area due to the proximity of the I-270 interchange and the location and size of the Lucent Technology campus, Mount Carmel Hospital, and Forest Lawn Cemetery. As a result, there is a severe limit on the practical locations for potential east-west connectors. Efforts should concentrate on roadway connections between existing roads and redeveloping parcels (*see figure 2a, recommended roadway connections - additional study area*). Areas of particular focus include creating road connections west of McNaughten Road and between McNaughten and Rose Hill Roads as parcels redevelop. This should also occur on the north side of Broad Street if parcels are subdivided in this area. The primary benefit of these roads will be that they allow for limitation of curb cuts along East Broad Street, thus improving its safety and function. In addition, this will improve the design of new development and make all the parcels equally valuable, rather than just the ones with full access or a signal. Finally, with a future signal at North Brice Road, a road could be extended south (as part of a residential development) to connect with its sister and create an important linkage.

IV. Land Use and Development

Land use in this area is dominated by Mount Carmel Hospital on the south side of East Broad Street, and industrial uses, including Lucent Technology, on the north side. In addition, the large Forest Lawn Memorial Gardens cemetery is located adjacent to I-270 on the north side of East Broad Street. The industrial area in Columbus north of East Broad Street is bordered by CSX railroad tracks and gains access to Broad Street via Taylor Station Road, Lucent Drive, and Outerbelt Street. This area is largely developed, but some vacant sites remain that will likely be developed in the established pattern. To the south, there are a number of parcels that are rural in origin and have remained residential in character. These parcels will be subjected to reuse and redevelopment pressure in the near future and are the most significant areas of interest (*see figure 3a, land use - additional study area*). In particular, parcels along the south side of the road between McNaughten Road and Rose Hill Road have been repeatedly considered for redevelopment for a variety of uses. These parcels are less than 10 acres in size, with most less than 5 acres, and are targets for retail development that relies on high visibility and large volumes of drive-by traffic. Fast food restaurants, auto service centers, banks, and convenience stores are examples of these uses.

Land use recommendations for the area fall into two general categories: those for established, long-term uses and those for the smaller parcels facing redevelopment pressure. For the more permanently developed areas, there is no reason to change the established uses. The industrial uses to the north are appropriately located and generally border the highway, railroad, and cemetery. As long as their appearance from East Broad Street is considered, these uses will serve the area well by generating limited traffic and contributing to the local tax base. These facilities

Recommended Roadway Connections

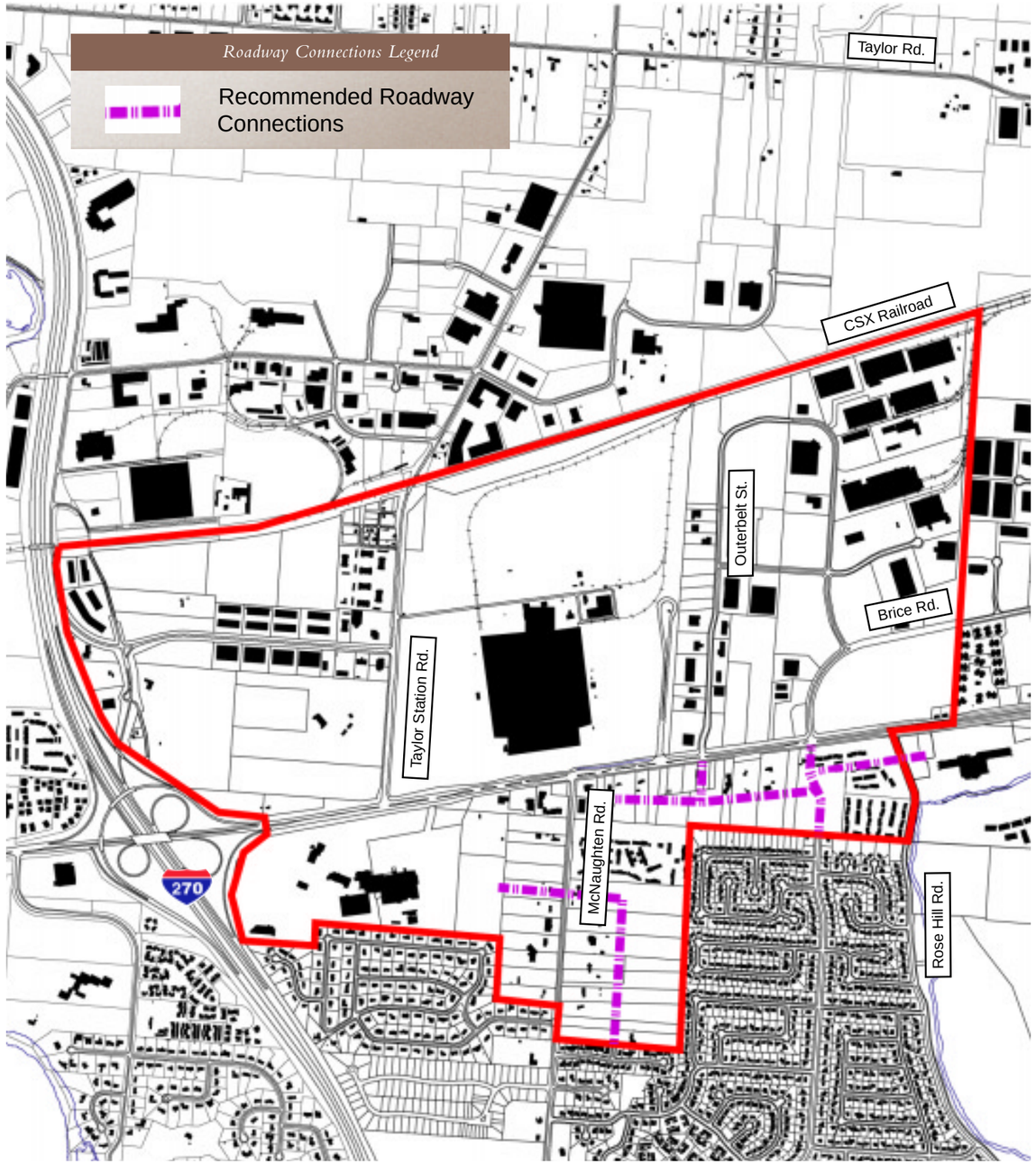


Figure • 2a

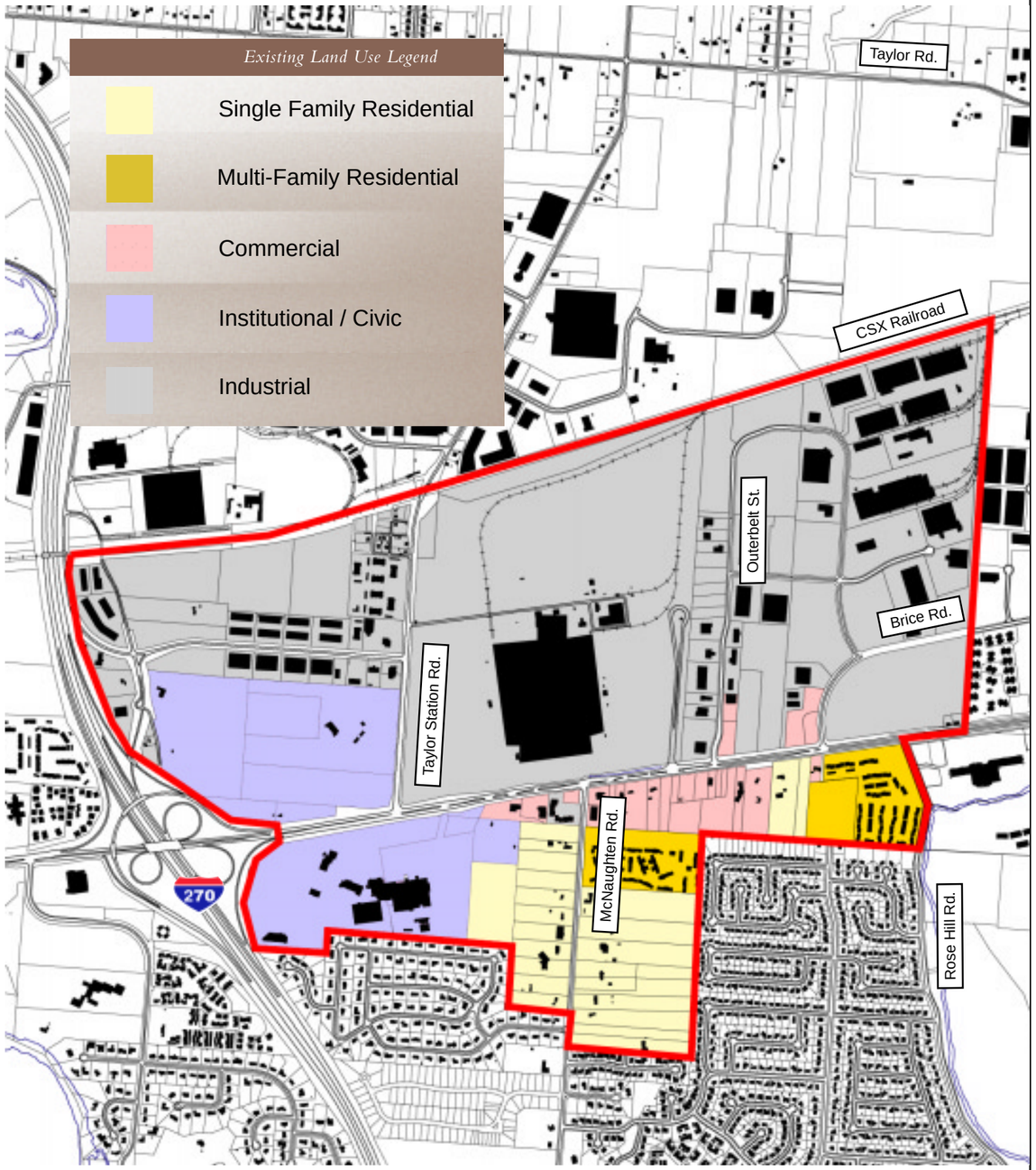


Figure • 3a

generate considerably less automobile traffic per acre than residential, office, or retail development and the proximity to I-270 means that truck traffic will travel only a short distance on non-highway roads. Most importantly, access to the rail line eliminates much of the need for overland traffic for these operations. The Forest Lawn Memorial Gardens cemetery is beautiful green space, generates minimal traffic, and serves a significant purpose. It is a worthwhile and permanent use. The hospital is the most significant landholder on the south side of East Broad Street. Mount Carmel's location is also advantageous due to its proximity to highway access and it may facilitate development of complementary medical-related uses along East Broad that would serve the employee and patient base established there.

Land use for the remaining parcels along the south side of the street and those that are undeveloped should be carefully considered. The primary concern is creating further difficulties along the already congested East Broad Street. This includes approving uses that create or require new full-service curb cuts (they impede traffic flow and safety) as well as and those uses that generate significant vehicle trips. In redeveloping these sites, it is critical that the recommendations for improving East Broad Street are considered. In particular, access management planning should be implemented on East Broad Street, including the installation of a landscaped median with breaks only at public streets and major traffic/ emergency vehicle access points. This precludes development of full curb cuts at non-intersection locations. As a result it becomes necessary to require the creation of cross-access traffic routes between these parcels during development/redevelopment to limit the number of curb cuts (*see figure 4a, potential redevelopment sites - additional study area*). Secondly, land uses should be considered that would not add significant new vehicle trips on East Broad Street. Preferred development might be classified as "neighborhood based" that would serve the residential population already existing in the area. Uses might include medical office uses, neighborhood-oriented offices for accountants, realtors, or insurance agents or perhaps some small-scale retail. If a higher density residential use is considered, it must have access to a road other than Broad Street.

V. Parks and Paths

This area is largely developed or has committed land uses. There is some open space in this area in the form of Forest Lawn cemetery and large setbacks along East Broad Street for Mount Carmel Hospital and Lucent Technology campuses. Otherwise, there is no public parkland in this area and little significant undisturbed natural features. Due to the existing development pattern, this analysis does not suggest developing additional parkland in this area. First, there are no substantial vacant areas remaining along this portion of East Broad Street. Second, examining this issue on a larger scale, the majority of the study area's residential development lies to the east and would be better served by concentrating park acquisition and development resources there.

A critical need for this study area is the installation of pedestrian pathway connections throughout the area. This area is devoid of sidewalks, bike paths, and trails. This is the result of the type of development that occurred here and the time period when it was built. East Broad Street, in particular, should have grade-separated routes for pedestrians and designated bicycle facilities to provide for their safety, to encourage and connect to recreational opportunities, and to promote alternative means of transportation access to businesses along this route. The existence of sidewalks and bike paths will become increasingly important as transit options develop that can supply employees, customers, and patients with access to the area. COTA service is already available to this portion of East Broad

Potential Redevelopment Sites

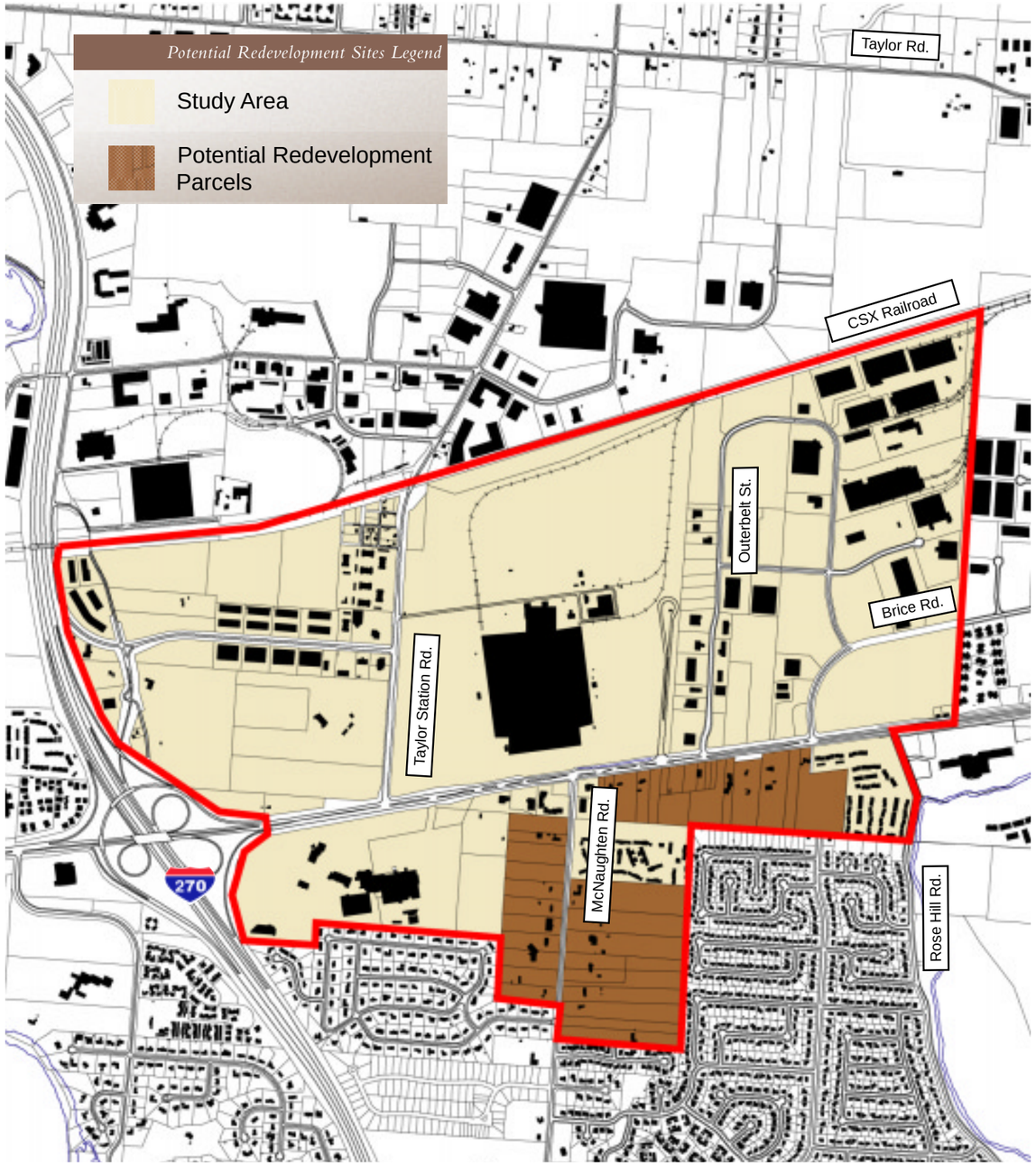


Figure • 4a

Street and many riders end up walking along the road. Under present conditions, this is very unsafe and completely uninviting, particularly during periods of peak traffic. Riders will be encouraged to take advantage of COTA service if sidewalk connections exist to enable their safe walk to their neighborhood or business. Once an East Broad Street sidewalk and bike path is built, pedestrian links could then be made into the adjacent areas where a pathway network is encouraged to develop along with the new parkland proposed for the area. (*see figure 5a, recommended bicycle and pedestrian path connections - additional study area)*

VI. Transit Issues

Developing alternative transit options will be of paramount importance for this area. In addition to the bike paths discussed above, the area would also benefit from increased COTA service. There are also the CSX railroad tracks along the north side of the study area. These tracks are included as one of the promising commuter rail corridors in a current MORPC/COTA study. Both the increased bus service and development of a commuter rail system are possible for this area if COTA is able to pass a new levy in the next couple of years.

The Mount Carmel East Hospital could find particular benefit in increasing the access for employees, patients, and visitors to their facility. Due to the wide range of job opportunities and services provided there, it is likely that a certain percentage of those commuting to the hospital do not have access to their own vehicle or may not be able to drive. Augmenting safe, reliable, and convenient public transportation will provide an increasingly appealing option to the over-congested roadway network as well as provide access for those who need it. Mass transit options are no less important to the existing Lucent facilities and adjacent industrial parks in this area. To this end, the recommendations regarding transit that have been detailed in the study apply here as well.

VII. Recommendations

The specific recommendations related to this study area echo those for the larger adjacent study area. As described in the above sections, there are several specific instances where these recommendations differ in their application, but all apply here in principle.

Those recommendations are to:

1. Revise the City of Columbus thoroughfare plan for this area;
2. Widen East Broad Street to six lanes – with a landscaped median;
3. Require the creation of additional east-west roadway connections as parcels develop and redevelop;
4. Implement principles of the Traditional Neighborhood Development code standards for future development in the study area, particularly with regard to road interconnection, building siting, parking location, and pedestrian access;
5. Encourage development along East Broad Street that are low trip or off-peak generation uses – limit additional retail development along East Broad Street;
6. Develop an interconnected bike/walking trail network in the East Broad Street area;
7. Encourage siting and developing transit stations and bus stop/shelters in the East Broad Street study area;
8. Organize an advocacy group for mass transit;
9. Create design standards for East Broad Street; and
10. Adopt policy and code requirements for redevelopment of East Broad Street rural lots.

For a more detailed description of individual recommendations, please refer to Section VII of the East Broad Street Study.

Recommended Bicycle and Pedestrian Path Connections

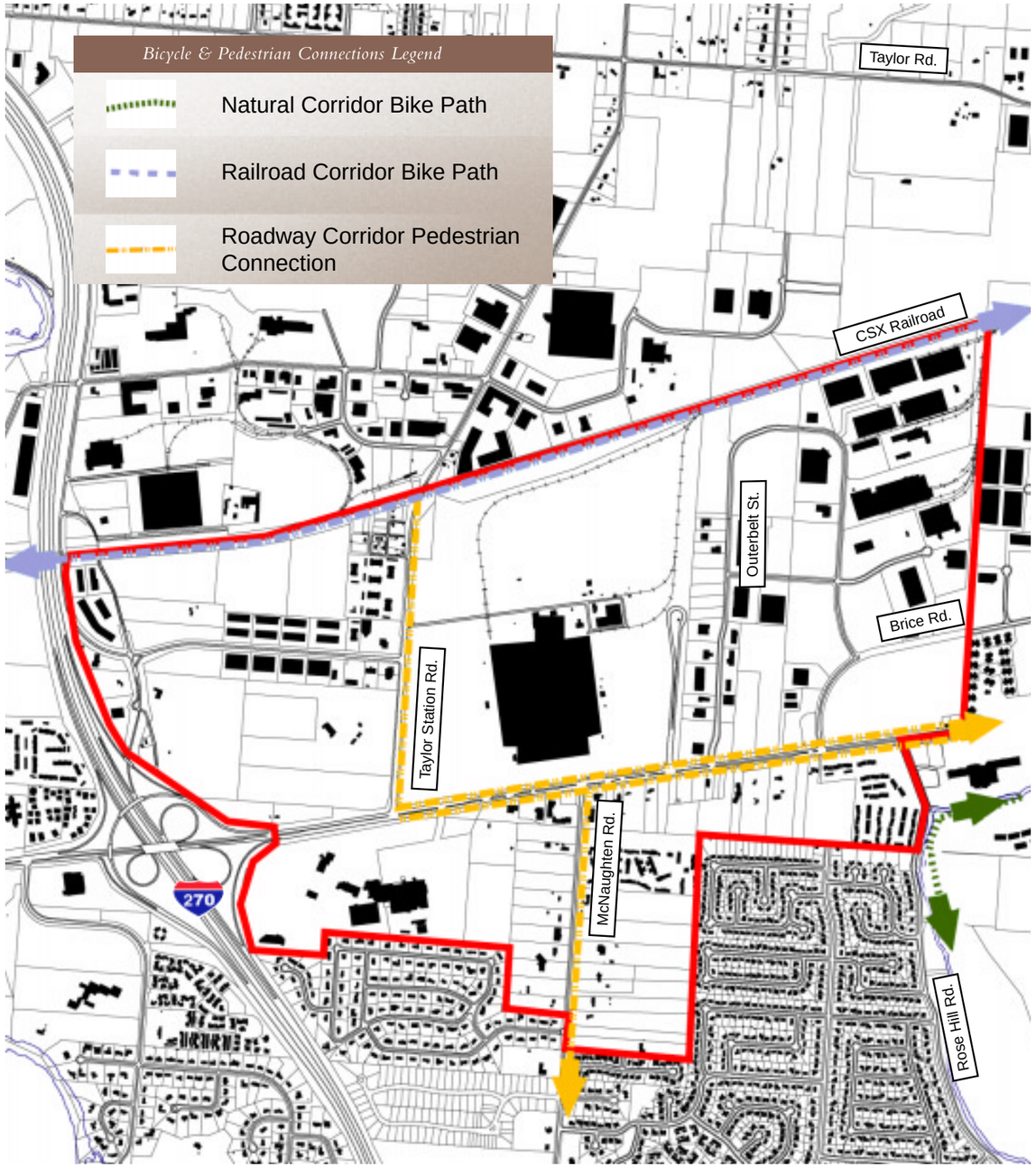


Figure • 5a

Appendix C - East Broad Street Study Steering Committee and Consultants

Steering Committee Members

Steve McClary
Administrator, Planning Office
City of Columbus-Planning Division

Dick Ritchie
Neighborhood Planning Manager
City of Columbus-Neighborhood Planning Division

Suzanne Wingenfield
Senior Planner
City of Columbus-Neighborhood Planning Division

Bill Lewis
Traffic Engineer
City of Columbus-Traffic and Engineering

Keena Smith
City Council Staff
City of Columbus

Mike Greene
Planner
Central Ohio Transit Authority (COTA)

Roxanne Buchanan
City of Columbus-Building and Development Services

Ellen Walker
Administrator
Jefferson Township

John Brandt
Development Director
City of Reynoldsburg

Beth Traini
Senior VP of Corporate Development
Mount Carmel East Hospital

Debbie Tracy
Facilities Director
Lucent Technology

Rick Jackson
Senior Vice President Logistics Operations
Limited Logistics Services

Paul Lukeman/Charlie Fraas
VP of Development/Development Officer
The Don Casto Organization

Project Consultants

Keith Myers
Partner
Myers Schmalenberger Inc.

Chris Hermann
Planner I
Myers Schmalenberger Inc.

Doyle Clear
Principal Associate
Parsons Transportation Group

Jason Sudy
Planner I
Myers Schmalenberger Inc.

Kathryn Wimberger/Aron Fraizer/Paul Buchanan
Planner II/ GIS Coordinator/ Graphic Artist
Myers Schmalenberger Inc.

Angie Christo
Senior Transportation Engineer
Parsons Transportation Group